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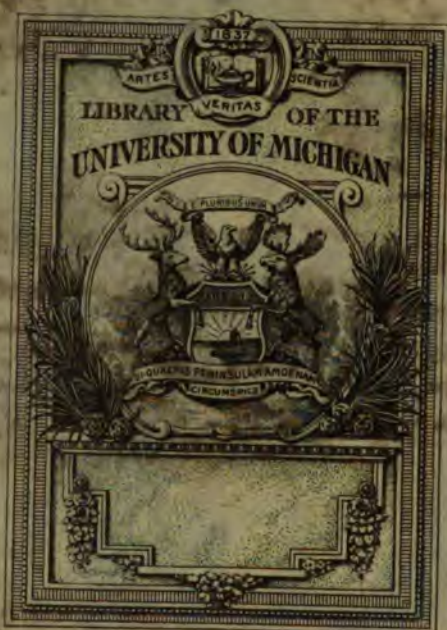
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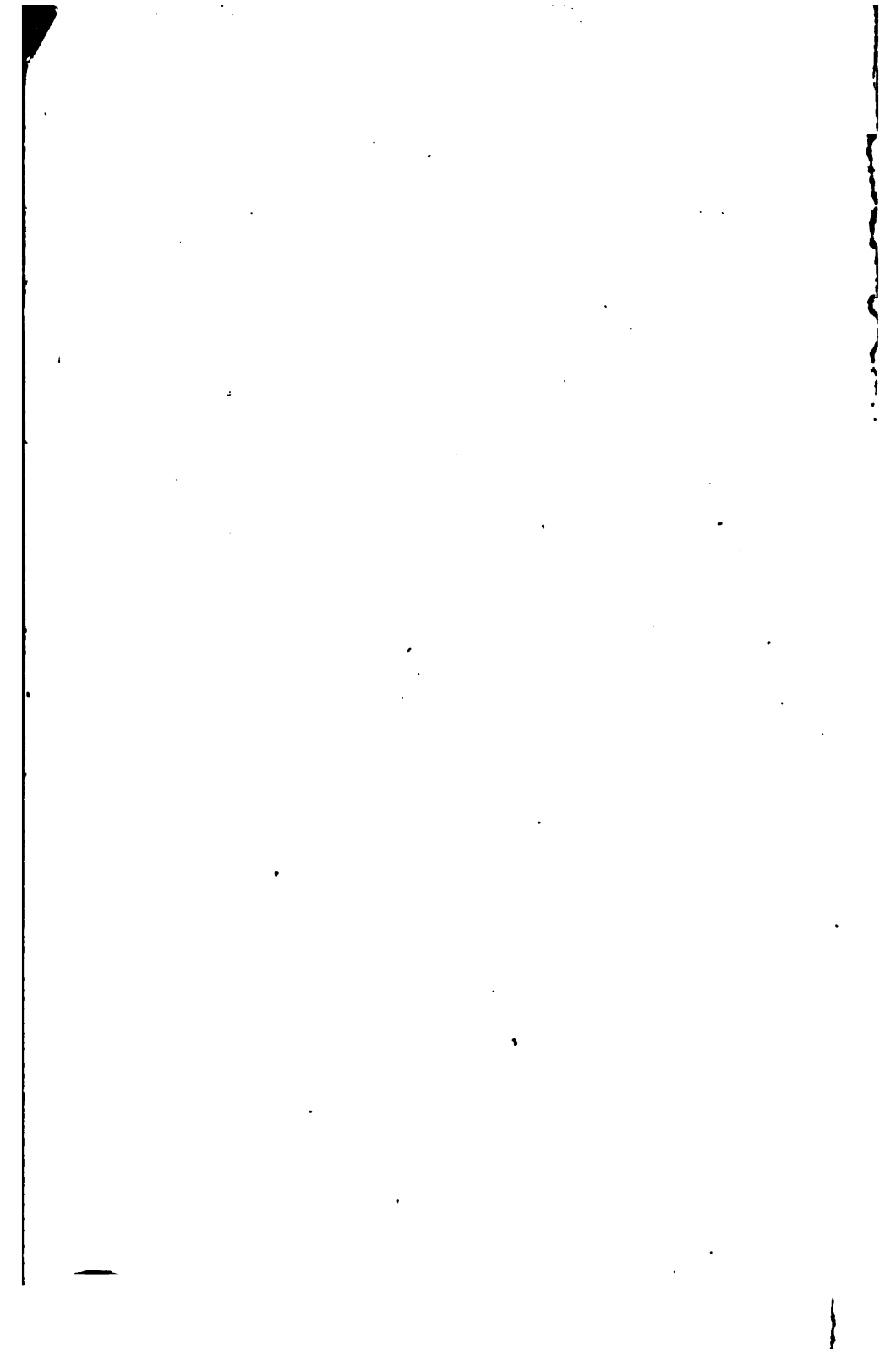
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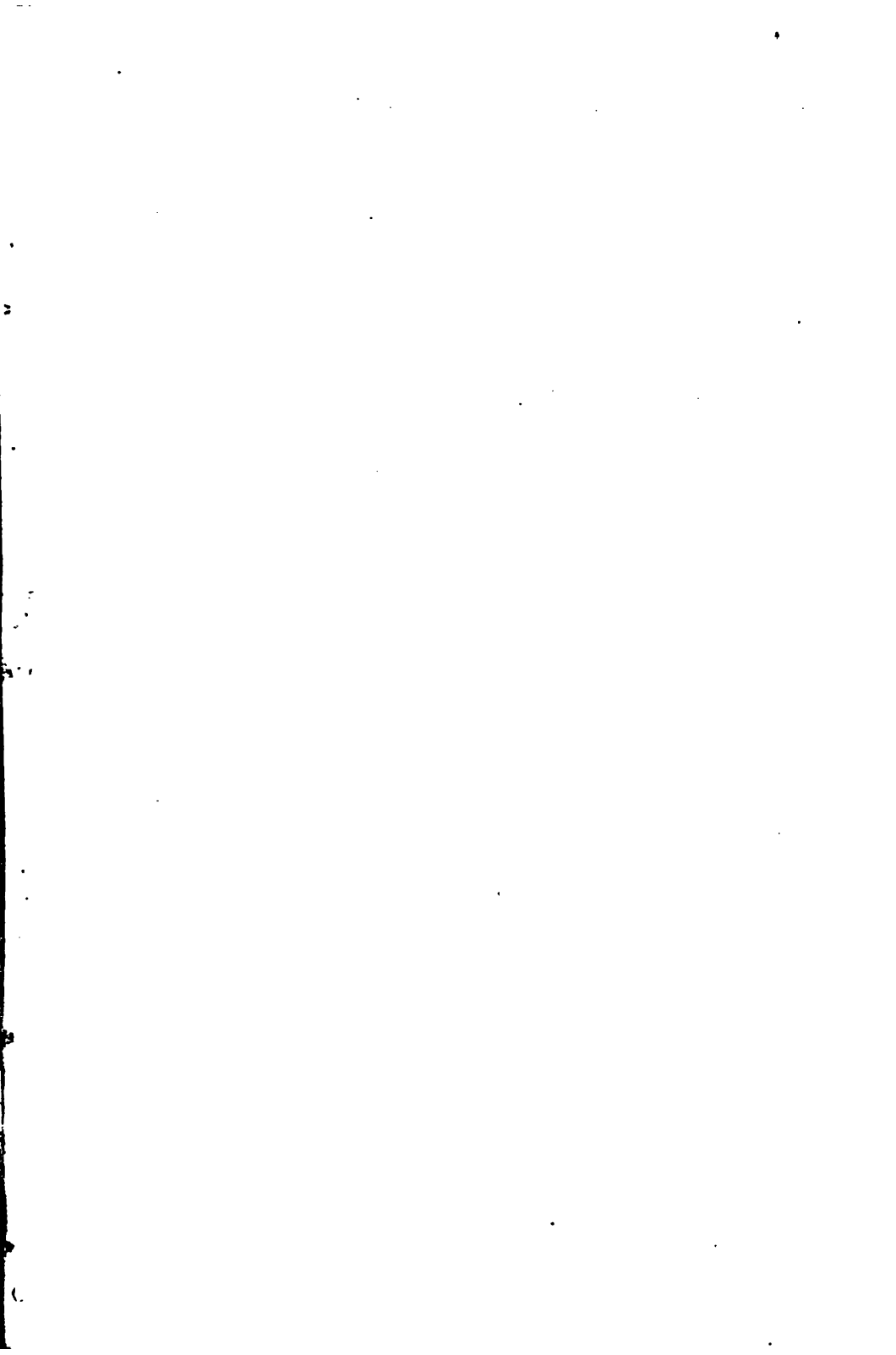


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THE
POLITICAL ECONOMY
OF
GREAT BRITAIN, THE UNITED STATES,
AND FRANCE,
IN THE
USE OF MONEY.



A NEW SCIENCE OF PRODUCTION AND EXCHANGE.

BY
J. B. HOWE.

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Money cannot be separated from its use; because, if separated, it ceases to be money. Bank debt is the record of production by the aid of bank loans, and bank reserve is the record of the exchanges for consumption of the things produced by the aid of bank loans. Therefore bank reserve and bank debt ought to be kept in as steady a ratio as possible. The great need of the commercial world, at this time, is a sound theory of production and exchange, by actual demonstration.

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TO THE BANKERS OF THE UNITED STATES.

I DEDICATE to you this book, which for good reasons, as I believe, I have entitled "The Political Economy of Great Britain, the United States, and France, in the use of Money. A new Science of Production and Exchange."

My theory of money, and consequently of deposits, is, I believe, entirely new, and therefore so entirely opposed to all current ideas and the language which embodies them, that to get a fair hearing at once may perhaps be difficult.

Commerce is a series of exchanges ; gold and silver are exchanged for all articles of merchandise in international commerce, where there are no convertible promises to deliver them on demand. Where there are such promises they may be substituted in the national markets, except where shipments of money into the markets of other nations are required ; and, in the latter case, the money usually becomes merely bullion. Gold and silver in coin, and all other metallic money, when actually exchanged for merchandise of any sort, naturally, because necessarily, cease to be like the ordinary merchandise for which they are exchanged. The relation between one kind of merchandise and another, when the two are directly bartered for each other, is plain and palpable, and consists of the different uses to which they are to be put, and the respective quantities of each to be had, etc. When two Africans or two Indians exchange commodities, they naturally, perhaps instinctively, value by *units*. This is demonstrated by the kind of money they use, where they use tangible money at all. There was at one time a western tribe of Indians which used elk teeth. These must have

been substantially mere units of valuation and purchase. There was an African tribe, says Montesquieu, who used abstract units called *Macoutes* to make their exchanges. There was really no such thing as a *Macoute*, except as the name of an abstract unit ; if there had been it was no longer to be found. These were merely units of valuation, and not of valuation and purchase.

This is the true nature of all money. Neither gold nor silver, in its character of money, can by any possibility be valued, nor can it be used to value, as an ordinary commodity. The bullion can be so valued and can itself so value ; and can value and be valued in no other way. Hence the bullion rates in London are mere barter rates of exchange between gold and silver, or metallic merchandise or commodities ; silver has not fallen fifteen per cent. below gold, but only seven and one half per cent., while gold has risen seven and one half per cent. above silver. One has lost and the other has gained in barter rates, precisely to the same extent. If Germany had kept silver as standard instead of adopting gold, while on the other hand the states of the Latin Union had, as they virtually have, made gold the standard by stopping the free coinage of silver, silver would have fallen less and gold would have risen less than it has in London. The difference resulting from the act of the Latin Union, whatever it might be, would have found expression in Berlin as a rise in gold and not a fall in silver ; and it could not be intelligibly stated in any other terms. On the London side we should, in that case, I will suppose, have a fall in silver of say seven and one half per cent., and on the Berlin side a rise in gold of seven and one half per cent. But rise of gold cannot take place at Berlin unless silver is stationary at Berlin, and fall of silver cannot take place in London unless gold is stationary at London. A contradiction in terms results which can only be solved by a mutual compromise. The solution is, that gold has risen halfway and silver has fallen halfway.

But this has nothing to do with the actual average purchasing power of gold in England, and of silver in Germany or India, in the shape of units of money. Average purchas-

ing power of gold and silver depends upon two elements : first, total number of units coined and distributed ; and second, total amount of circulation accomplished by them. The relation of the metallic merchandise or commodity gold, or the metallic merchandise or commodity silver, to all other merchandise or commodities, is necessarily and unavoidably abstract ; that is to say, the only conceivable relation between them *universally* existing is that of units ; and this conception is practically carried into effect, whenever, wherever, and however money is used.

This is the reason, and the only reason, why paper money largely takes the place of the metals. All money becomes a substitute merchandise or commodity in all exchanges. But, to speak with rigorous accuracy, it is only a series of units of valuation, purchase, and payment, limited so far as limited at all, if metal, by the quantity of metal to be had ; if convertible paper, limited perfectly or imperfectly by the units of metal circulating at the same time ; and if inconvertible, only by the exchanges it makes with commodities.

This analysis lets in a flood of light upon banking reserve and deposits. If gold or silver in the banking reserve is an ordinary commodity, as Adam Smith and everybody else in his time believed and asserted, and everybody has taken for granted since, then merely to supply the demand is all that is necessary, and bankers keep much more than is necessary, because they keep much more than enough to meet ordinary calls. But if gold and silver money furnish, as unquestionably they do, the steadiest currency, not because they are ordinary commodities, but because there is already a vast accumulation of such money distributed with and by commerce, and because instead of being ordinary commodities they are really units of valuation, purchase, and payment, or substitute commodities, if in order to aid the understanding we choose to call them so, then an intelligible relation between deposit-reserve and deposits is immediately demonstrated.

If we wish to regulate deposits, we must do it by the reserve ; if we do not, deposits will regulate the volume of the reserve instead of the reserve regulating the volume of de-

posits. Deposits, as distinguished from the reserve, are not money, but a power to put in circulation money out of, into, and in some cases (by clearing) in the reserve, equivalent, so far as the circulation into, out of, and in the reserve is concerned, to so much money. They are powers to put in circulation, by means of the stream coming into the reserve, the same amount of money the owners of the powers could circulate if they had bank-notes or metal equaling the powers in volume; while the banks at the same time have an unlimited power to put in circulation, through loans, all the money the producing market will stand short of a crisis; and these loans are all supplied, as they are made, out of the same stream. This results from the unit character of all money. The only check possible or supposable in the case, is a limitation of the volume of these powers (created by bank loans) by the incoming stream of deposits, which is supplied by actual exchanges of merchandise for consumption. Why and how such a limitation naturally results from the use of sound, convertible bank-notes, coming from banks of issue only, having no function of deposit or discount (for all which we have the testimony of Adam Smith in respect to the Scotch banks of issue of his time), and why and how it happens that no such limitation exists in respect to the powers referred to, called deposits, which are equivalent to bank-notes, I have discussed in every form I could think of, and from every angle of observation I could find, in the book referred to above.

My theory thus answers the old question: "Of what use is metal in banking reserve beyond supplying the calls of those who want to carry it away from the bank?" It is equally efficient in solving the problem in respect to the remonetization of silver by the United States. The objections to remonetization do not arise from the cheapness of silver or dearness of gold. Probably no material difference would exist between the purchasing power of silver in the United States, should our barter rate of monetization drive out all the gold, and the purchasing power of gold, should we refuse to remonetize. Other things being equal and no

treasury notes kept out in either case, probably the difference would not exceed three per cent. In other words, we might have in one case three per cent. more of silver dollars, their multiples and fractions, than in the other case of gold dollars, their multiples and fractions. To bring about this final result would take some time, but before it could be accomplished, the barter rates of exchange between metals in London would produce fluctuating rates of exchange against outgoing produce from the United States, which could only be paid by an arbitrary credit given to the outgoing produce to cover the difference. This would make its appearance in the bills of exchange, founded upon the outgoing produce. The debit to silver, in the barter exchange with gold in London, would be paid by American outgoing produce. In order to make this payment, it must first, through bills of exchange, be credited with that difference. To create this credit a credit must be entered for bills of exchange, founded upon and resulting from the outgoing merchandise. This would create a debt to be paid by all production and all commerce in the end, to a great extent, although outgoing produce would retain, probably, a part of the credit it had received. Furthermore, merchants and bankers of the United States are not yet ready to deposit in the treasury all their silver, and circulate it by means of paper. To circulate it in any other manner, after driving away all the gold, would be intolerable. To substitute silver entirely for gold, and take the load other nations have thrown off in part, and will gradually throw off entirely, would be to go backward and not forward; it would also cost more than to keep our present stock of gold, get a little more, and maintain an outstanding circulation of treasury notes to the amount of seventy-five to one hundred and fifty millions.

Whether we keep gold, or exchange it for silver, an equal cancellation of bank and treasury notes is demanded, in either case. Ultimately, in case of remonetization at the ratio of 16 and 1, the barter exchange between metals would settle down to a comparatively steady rate; perhaps three per cent. The change would be an experiment, resulting

in no expansion, in the popular sense, but in great inconvenience, and a postponement of convertibility. The premium on metal in treasury and bank notes is no indication of the contraction we must actually make in the volume of outstanding paper. The real contraction which has taken place is in production and business; production is the original source of deposits over and above reserve; the whole volume of money must be reduced. This volume has at this time nothing to do with prices.

These are the true and therefore the only really practical objections to the remonetization of silver at the ratio of 16 and 1. The whole subject should be postponed to a congress of commercial nations. If the United States choose, they have undoubtedly the same right to remonetize that other nations had to demonetize. They are bound by only one guaranty, and that is to keep their creditors and all other creditors safe from any loss by reason of their act, when the loss is the direct result of it, and from any loss by the act of other nations. Had the United States driven out gold, by undervaluing its barter rate with silver, instead of driving out silver as they did, by undervaluing its barter rate with gold, the late demonetizations would have caused a rise of barter rate on the part of gold, which would have depreciated their silver dollar regarded as bullion in European markets. This loss the United States would have been bound to make good to their creditors, although the exact tenor of the bond would not have required it.

It is not the legal tenor of their obligations which binds nations; it is their equitable tenor. The barter rates of the two metals, or the barter rate of one metal to-day, as compared with its barter rate at a future day, as in the case last supposed, must determine the question; it is not the relative purchasing power of the two metals considered as one in respect to all commodities, nor the relative purchasing power of one metal (*e. g.* silver) to-day, compared with its purchasing power at a future day, that determines the liability. That difference is practically incapable of being ascertained, depending upon an indefinite, I had almost said infinite,

number of ratios resulting from each purchase. Governments may depreciate gold forty per cent. in purchasing power, as did the United States, but this they cannot be called upon to make good to home creditors. Purchasing power is one thing; barter exchange rates between gold and silver, or gold to-day as compared with gold to-morrow, and silver to-day as compared with silver to-morrow, are another thing.

Again, were there but one metal, quantity of metal in a money unit of a given name to-day is one thing, and quantity in the same unit to-morrow is another thing. To raise this question of barter exchange requires more than one country, and a market like that of the commercial world, composed of the markets of several countries, and purchasing power is not an element of it. The late commission appointed in England to inquire into silver prices in India, resulting from the late demonetizations of silver, ought to have been supplemented by a commission to inquire into gold prices in England. From the standpoint of gold and silver money being ordinary commodities, and governed by the laws of ordinary commodities, one commission would have been as reasonable as the other. It is a mistake to suppose that bankers have any peculiar interest in opposition to the remonetization of silver; so far as bank-note redemptions go their interest lies with remonetization. It is really the whole country that is interested against it, and not a part of it.

These are some of the new ideas brought forward in the book, and to them I invite the attention of all bankers. I ask this because it is so difficult to get a hearing upon a subject which every one supposes that he understands sufficiently already. It is credit of some kind, on a gigantic scale, which is the cause of commercial crises. It comes in some way from bank loans, because a banking crisis accompanies a commercial crisis. Either the latter causes the former, or the former causes the latter. But it is impossible for commercial crises to be the cause; they are only the result. Banks then are the cause or one of the causes, and the cause is brought to bear through loans, and loans depend upon the reserve.

It is inconceivable how a mass of metal or ordinary commodity in the reserve can have any effect. It must and can be conceived as a series of units only, like the units of bank credit. Without this conception, the whole subject is chaos.

Upon no other conception of money is it possible to understand in what way a reserve of metal can, in any manner, regulate bank loans, or have any necessary connection with them. It is in consequence of the credit character of all money that bank debt, whether in the shape of notes or credit entries, connected with outstanding circulation by means of the reserve, becomes a substitute for an equal number of the units of metal in bank-note-redemption reserve and in banking reserve. Whoever offers metallic money, bank-note money, or credit in bank, to be transferred by check, in exchange for all things on sale, labor included, is by convention entitled to make the exchange. If by any artificial contrivance the money can be used to pay for labor faster than the results of that labor can command the same amount of money the labor cost, the result (which is the main thing to be looked at) is production on credit. The credit consists in obtaining a living by consuming, through the aid of the money advanced, things other than those produced, and retaining the savings of labor in the shape of earnings to be used, as the other portion of the money was, in future support and in paying over future wages out of profits obtained from sales of the overstock by producers to those who cannot sell it to consumers; in profits out of such sales realized by stockholders, in vast sums in the shape of discount and interest paid to banks and individuals out of the same fund, and in wages indirectly paid out by the receivers of these dividends and profits, through the purchase of railroad debentures, mortgages, city, town, and county bonds; the proceeds being applied to pay for labor or debts due labor.

It is said that deposits arise from sales. This is a mistake. They arise from production; and under the English and American system of banking they arise from production

on credit. The means of creating the credit consist of the loans of money which are used to pay for labor faster than labor's results will sell, or can themselves become productive. It is a blocking of the exchanges. This is the real credit. Banks do not make all the loans; they make the loans by which other loans become possible, and then all the loans taken together constitute the vast system upon which production on credit is built up.

The ability to produce is limited, and hence the power of consuming, if not limited otherwise, is limited by the power of producing. Consumption is thus brought to an average, and being itself thus brought to an average, brings the circulation of money, as the means of distributing the things to be consumed, to an average.

One class of consumers cannot go far in advance of another, therefore; and so far as they do go in advance the circulation of money must go equally in advance, and general prices must rise. Production rises in proportion until checked by the law just stated. Money in the reserve is deposited from the outstanding circulation, which is all the time making distribution to consumers. On the other hand, the increasing volume of deposits shows the increase in the volume of products which cannot be distributed for consumption. Therefore, to allow deposits to increase in this manner is to attempt to regulate consumption by production, the commerce of commodities by production of commodities. To regulate deposits by reserve is, on the other hand, to limit, at some point, the production of commodities by the commerce of commodities; and hence if metal constitutes the reserve, it must itself constitute a part of outstanding circulation, either alone or in company with bank-notes, as was the case in Adam Smith's time in Scotland. This is the only kind of real connection between deposits and banking reserve, because reserve, on the one hand, shows the consumption and therefore the real commerce of the country which supplies it, and, on the other hand, deposits show a large proportion of the production of the country which supplies the commerce; the ratio between deposits and reserve shows the

ratio or proportion between accumulated stocks and actual commerce. If the latter ratio is maintained at an average within short intervals, business is sound and healthy, as in France, with her metallic currency without banks; if at long intervals only, as in England, under her virtually metallic currency, and in the United States, with their convertible bank-note currency, business is not sound and healthy, because the average can be brought about only by a commercial crisis, which, in true economical science, is a rectification of the exchanges, by forces paramount to money and the use of money.

My theory of money thus explains all the phenomena of money, in addition to the fact that I have demonstrated it both directly and indirectly, synthetically and analytically, in advance of this explanation. It shows also in advance what the commission of inquiry into East India "silver" prices discovered to be the fact, that prices have not risen in India in consequence of the fall of silver bullion in Europe, and that any change of this kind must be slow; while, on the other hand, any change in "gold" prices must be equally slow; and the changes themselves, when accomplished, will be of little practical importance unless further monetizations or demonetizations on an extensive scale occur. All this is true because gold and silver coin have no universal relation to all other commodities except that of numbers by units, and no mental conception of any other universal relation can be formed. Bullion rates are therefore a part of necessary means to the end, which is coining of units of weight to be used as money. Changes in the latter are the slow and gradual results of changes in the former. No extensive changes in purchasing power are likely to result.

Relative consumption of gold and silver in the arts and manufactures is increased by relative increased production, and diminished by relative decreased production. The vast store of silver and gold in the latter shape and the vast store (probably twice as much) in coin, render it practically impossible that there should be any overproduction of either metal, because the ratio of production to money is so small;

but, nevertheless, under deposit loans, conservative bankers, manufacturers, and merchants are powerless in checking the advancing tide of ill-balanced production. How to do it I have shown in this work.

The question, "What is money?" has, in my opinion, never been answered truly before, because the answer has always been and still is, Real money in the shape of metal is a commodity, like all other commodities. I claim to have demonstrated in this work that it is not an ordinary commodity, but a conventional one; in exact language, a unit of valuation, purchase, and payment, and, taken altogether, a series of such units limited in number by the metal which localizes them.

Having thus answered the question, "What is money?" I am prepared to answer the questions, "What are Deposits?" and "How do they affect production and commerce?" As articles of commerce are produced and sold in excess of consumption, deposits increase; as they are sold to consumers who get their money from articles of commerce they have sold themselves, the reserve increases. The *circulation* of money is everywhere and always one and the same thing, because money is everywhere one and the same thing in substance; and production, commerce, and circulation constitute one grand whole, whose minutes are recorded in England and the United States in deposit and discount banks. It is impossible to understand this fully without a preceding analysis (mentally) of money and its uses. It is because all money is essentially a series of units, each of which is possessed of purchasing power, in proportion to the number of all of them, multiples and fractions included; whether units be in the shape of reserve or in deposits generally or in bank-notes, or in any kind of commodity (even wheat by measure or weight units), that the reserve is in any sense a regulator of discounts. Whatever may be the money in circulation, the reserve, in the absence of artificial regulation, is made up and consists entirely of money deposited out of that circulation; and that circulation is the circulation of a consumer's market. If, on short averages, seventy-five per cent. only of

all deposits were kept out on loan, there could be no such thing as we call a banking crisis, because the consumption and therefore the exchanges of merchandise with and among actual consumers, would, upon short averages from that point, equal the production of merchandise and of all commodities and services.

There are three grand fallacies which must be subverted before there can be any progress in monetary science: a bank does not deal in debt or credit, as commonly supposed: money (gold or silver) is not a commodity: the doctrine that there can be no overproduction is absolutely false though relatively true. In opposition to these fallacies, I claim to have demonstrated the following propositions: A bank deals only in that additional use of money deposited, over and above the use made by depositors, which the current of deposits enables it to make, and the result appears in loans on the side of the bank and production on the side of the borrower. This additional use may be called the credit circulation of money. A bank of deposit can no more deal in its own debt than a house can stand in the air without foundation. The moment it deals in its own debt it must become a bank of issue in some form. Deposits come only from outstanding circulation. Hence to fix and keep reserve at a certain point is merely to stop using the money of commerce at a fixed point, instead of using it in further production. This is demonstrated by the fact that when reserve ends banking ends. Money is not a commodity but a series of valuing, purchasing, and paying units; otherwise it could never furnish steady circulation and prices. M. J. B. Say's law, that there can be no overproduction, while relatively true in a limited sense is absolutely false, because the absolute necessities of life cannot be overproduced, while the relative can be and are being overproduced in a ratio progressively increasing with the progress of civilization. In France rectification of the latter takes place within short, in England long, and in the United States still longer periods. The present generation of writers and bankers will not accept and act upon these new ideas or theories; the next will.

If banks deal in credit, it must be an ordinary credit like that of merchants given to merchants ; but this is impossible, because one of the effects of bank loans is to raise general prices. Mercantile credit only raises the price of the merchandise sold on credit. Again, bank loans feed laborers, producers, and their families, whether the loans are made directly to first producers who originate, or to intermediate producers who produce additional value in the merchandise on its way to market. The latter step into the first producer's place in bank through a loan which succeeds and also adds to the amount of the first. Neither mercantile credit, nor any credit which resembles it, can accomplish those results which bank loans undoubtedly accomplish, and which every practical man must admit they do accomplish. The premises, being thus contradicted by the conclusion in two very important particulars, must be false.

The fallacy that banks deal in their own debt probably arose from the fallacy that bills of exchange, notes, and checks are a "species of currency." If the notes given for merchandise, and the bills drawn against it, circulated generally, like bank-notes, then undoubtedly they would be money as well as bank-notes, and would affect prices in the same manner. They would also be equally efficient in buying the merchandise necessary to support the laborers, producers, and merchants, who are creating overstock and holding it by the aid of bank loans. But this is not the case. Checks would also be money as well as bank-notes, if they circulated in the same manner, but they do not. They are the instruments to put in circulation the money, which is called the reserve. This word of itself indicates what deposits are. All the circulation brought about by depositors, whether they become such by loan or not, is through the reserve. What has helped to perpetuate the fallacy that a bank deals in its own debt is the old theory that money has a mercantile value. Because this is an error, and money is really a series of units, there is no assignable limitation but a commercial crisis to the amount of circulation, which may be accomplished by means of the reserve.

It is the rise of prices and feeding and supporting producers and laborers of all kinds which causes that want of harmony in production which can only be rectified by a commercial, industrial, and banking crisis. All loans of money, even in France, cause production on credit, but rectification of the exchanges of merchandise and money takes place at short intervals. If we represent the production of absolute necessities by a circle, and that of relative necessities by an inscribed polygon, then to designate the production and commerce of France, we may inscribe a polygon of three hundred and sixty sides, for that of England, one of thirty-six, and for that of the United States, one of eighteen sides. In France, the inscribed polygon, for all practical purposes, is the circle itself, because it touches it so frequently.

Relative deviation from harmony of production in the three countries is thus illustrated. The absolute and the relative are practically on a par in France, but are brought together in England and the United States only by a crisis. It requires a severe crisis to make the inscribed polygon touch the circle in England, and a still more severe one in the United States. The forces at work to bring on a crisis both in England and the United States are in the end paramount to money and the circulation of money.

That the operation of these forces is postponed to so late a period in England and the United States that the banking and commercial crisis is the only remedy, while in France they operate so speedily and continuously that no crisis arising from causes working at home makes its appearance, results from the fact that money is what I have affirmed it to be, and not a mercantile commodity, and because a bank deals, not in ordinary mercantile credit, or a credit resembling it, but in a circulation of depositors' money which is represented exactly by bank loans, and which is in excess of all the circulation caused by depositors themselves. If deposit banking (without power to discount) could be and were introduced at once throughout France, depositors putting their money in circulation by the use of checks, twenty-five per cent. of the money deposited would be sufficient to

meet all calls, and the remainder might be locked up. The incoming stream of deposits would supply the outgoing stream represented by checks. The money locked up could not be used by the banks without adding seventy-five per cent. to the existing volume of loans. Suppose the banks to use it, however; it would create a crisis; but if the banks carefully refrained afterwards from loaning any of the twenty-five per cent. now containing the "reserve," there would not be another crisis, because henceforth bank loans would be stopped at a definite point, the banks loaning seventy-five per cent. of all their deposits and no more. This is what I propose for American and English banks in the work referred to.

To illustrate the operation of the English and American system as it differs from the foregoing: Suppose the French banks to depart from their wise resolution, not to use more than seventy-five per cent. of the deposits in loans, and to make loans without any limitation by the reserve, they would then introduce the English and American system of banking, and with the same results. As Mr. Bonamy Price says in relation to reserve in the Bank of England, which includes a large amount of the reserves of all the banks, there would still be an abundance of metal in the reserve to answer, and more than answer, all calls. This comes from metallic money not being a commodity, but a series of units, like bank-notes. All this time the French banks would deal only in money in the reserve, precisely as they did at the beginning when they were merely deposit banks, and precisely as they did when they limited discounts by their reserve. The American banks, if permitted, could, under "specie payments," pay off their debts in a year by turning out the whole reserve and the whole line of discounts to depositors, or by issuing bank-notes for all deposits to depositors, retaining the metallic reserve to redeem with. In either case bank loans would soon come to an end, because the banks would cease to exist, and there would be no deposits to loan from and no stream of deposits to maintain loans. Every bank loan, therefore, would come to an end in time, and pro-

duction on credit (not production as a total or on the average) would be brought approximately to the French standard, and the circulation would be both paper and metal as with the Scotch banks in Adam Smith's time, and now in France.

Were the American banks thus converted into banks of issue exclusively, it would at once appear that bank debt over and above reserve, which I have called a series of powers belonging to depositors to put money in circulation, out of and in the reserve, is, upon a close examination, nothing of the kind. It was only a figurative expression to aid the understanding in comprehending the assertion that the whole circulation is supplied by the reserve. By the supposed metamorphosis or change of banks of discount into banks of issue exclusively, it would now appear that when depositors keep their own money, a volume, equaling the total of deposits, is requisite to supply the circulation they cause to take place, but when it is all banked, twelve, fifteen, or twenty per cent. is sufficient, the banks loaning all the rest. It would appear that all new loans are still, as all loans at the commencement of banking were, supplied out of what is called the reserve, because there is no other fund to supply them. Deposits, *minus* loans, always equal the reserve, and deposit and discount banks do not loan their credit any more than they loan their confidence or their good faith. Deposit loans come from what is deposited, not from what is not deposited. Not only bank-notes, but mercantile notes, and even credit entered on bank books, without any reserve of metal whatever, *might*, nevertheless, be used if the commercial community would agree to do so, and could thus make their exchanges satisfactorily, as they surely could not.

The point to be noted and remembered is, that banks can only deal in the money of commerce which comes out of a consumer's market. It must be deposited before it can be loaned, whatever its character may be. The moment a bank puts in circulation anything upon its own credit, it becomes so far a bank of issue. It might enter credits to be circulated by check. This would make it so far a bank of issue.

After the credit was deposited, it might loan upon it as a bank of deposit and discount, and not before.

All this results from the fact that all money, including metallic, is a series of units, of valuing, purchasing, and paying power, and not in any case an ordinary commodity. Were it such, all exchanges would be made only by the primitive barter of barbarians. The true science of money, of banking, and of bank reserve, will not be understood until this important fact is believed and generally taught. When it is, paper may with great convenience be more extensively used for commercial purposes, if properly limited by metal; the latter being confined chiefly to international exchanges.

For the reasons given, to call my theories by any other name than I have given them would be a misnomer. They certainly constitute an entirely new theory of production and exchange. I have demonstrated by the chapter on the development of money and its uses, and that in which the monetary systems of France, Great Britain, and the United States are compared, that the original idea of money has been developed in two directions: 1st, that of conventional commodity in the character of units of metal or other material; and 2d, that of mere units localized in paper promises; and that both, as units merely, have value inversely in proportion to numbers. I have demonstrated that the mind can form no other conception of money than that of a series of units. If all commodities and merchandise were merely circulated as money is, and never used otherwise, no other conception would be formed of them, because that would be the only one called for.

It follows, in the second place, without reference to development, and *a priori*, that such must necessarily be the case with money.

In the third place, I demonstrate the same proposition by collateral facts. If metallic money is a series of units, limited in quantity by the metal which contains and numbers them, then the two metals, gold and silver, ought to be in barter value, one to the other, inversely as the weights of the respective masses coined, assuming both to be univer-

sally in use as money, or approximately so; and such has always been the case. Again, if metallic money is an ordinary commodity, bartered for what it buys, like other commodities, then paper money must be the same, whether convertible or inconvertible; and barter rates of bullion in London ought to give the relative purchasing power of paper as well as gold and silver. But this is not the fact, and ought not to be the fact, if my theory of money is true. Carrying out this unit theory to its logical conclusions, I demonstrate that banking reserve is sufficient to supply all calls from depositors and borrowers, by means of the incoming stream of deposits supplied by the circulation of a consumer's market.

Passing on, I demonstrate the important distinction between money and the circulation of money and the true grounds of the fact generally accredited in the commercial world, that gold and silver furnish the steadiest prices, by showing why this is the case in France, and why it is not the case in England. Possibly I might never have made the discovery referred to had I not commenced my studies with the complex questions, What are deposits, and what is banking reserve? The practical outcome of the theory for England and the United States is, that even with a circulation substantially metallic in the former, the benefit of the regulating qualities of the reserve is lost, because the circulation of the gold in it varies with the total of deposits, and in the United States bank-notes and metal in the reserve vary in like manner.

The examination of deposits and reserve has also led me to discover that the theory that there can be no overproduction is practically false, and that the disastrous results brought on, in the shape of industrial, commercial, and banking crises, are largely to be attributed to what I call the credit circulation of money in banking reserve, giving rise to production on credit, as explained in one of the chapters of the book.

The mind almost instinctively repels at first thought the idea that metallic money is a series of valuing, purchasing, and paying units embodied in metal. It may be aided by

examining the process of all the purchases that are continually going on. Units of money are proportioned variously to units of goods, and units of the latter to units of money. The resulting ratios give purchasing power on the one hand, and price on the other, and the various ratios compounded give compound ratios of purchasing power and price.

But without a few words of qualification my definition of money would be entirely misunderstood. The idea, assumption, or belief, that either gold or silver coin is an ordinary commodity, having mercantile value, and being therefore an end in itself, instead of only means to an end, is the old mercantile theory itself, pure and simple.

I would not be understood as affirming that this theory, or rather this idea, can ever be eradicated, or that it would be desirable even if it were possible to eradicate it. The distribution of the precious metals has not been entirely in the tracks of commerce, because some nations receive and keep them in excess of their commerce, as compared with that of other nations; and banks have in some countries reduced the natural portion which, in the absence of banks, they would have required, the surplus going to countries where there are no banks. The idea of mercantile value in money is salutary where gold and silver, or one of them only, constitute the circulation. Stability does not lie in the money itself altogether, but partly in the persistence of the mercantile idea. Where money, however, has attained such complex development as in Great Britain and the United States, it has become one of the needs of the time to subject the phenomena which underlie the idea to rigorous analysis, not for the hopeless purpose of supplanting the idea as matter of fact, but for the purpose of scientific demonstration, with a view to the remedy of evils which, with the advancement of society and the progress of improvement, especially in countries possessed of such productive energy as Great Britain and the United States, are assuming frightful proportions.

To remedy this evil it is essential to give a scientific (that is to say, a true) answer to the question, What is money?

A true solution of this question will enable us to reply to the inquiry, Is it really ordinary credit that banks deal in, or is it a credit circulation of money, — a circulation in excess of that given it by its owners who deposited it? That there is a gigantic system of "credit" of some kind which underlies banking crises is past all doubt. The difficulty is, that the whole subject is exceedingly complex, and requires searching investigation.

Notwithstanding the ineradicable mercantile idea, the value of money is entirely conventional, because it lies wholly in what it buys. It could not be money if its value were not conventional. Gold, if demonetized, would perhaps lose seventy-five per cent. of its present value. But even while it is money, this twenty-five per cent. of intrinsic value, which is founded on intrinsic utility, is a value which, in point of science, must be eliminated; for if it were not, a dollar in gold would be worth one dollar and twenty-five cents. This intrinsic value is means to an end, and not an end in itself. It is means to an end because it helps to maintain an even ratio of metal going into the state of coin.

But a word as to bank credit. If all the gold and silver in France were banked, and seventy-five per cent. of it loaned out, the remaining twenty-five per cent. would perform as much circulation as the one hundred per cent. did before, because the stream of payments on checks would be payments to sellers, and the stream of deposits a return of the same money back again by sellers. Clearings would retain a considerable portion of the stream in the bank. But could it be said with truth, that the banks were dealing in their own debt? Certainly not, because if the expression could have any meaning whatever it would be contrary to the fact. Nevertheless, there is some meaning behind the expression, if not in it, and it is this: that the circulation given to the money of depositors by the banks would be in excess of all that which could have been given it if there had been no banks. That circulation, if not stopped at a fixed point, would build up and maintain a system of loans like that of the English and American banks; it would be

applied to the purposes of production, and would lead there, as it has done in the United States and Great Britain, to interest and dividends out of and profits on merchandise produced and sold, out of as well as in a consumer's market.

This is not credit, but the circulation of money on credit. In the end, in all such cases, production in the quarter where loans go stands debited with merchandise consumed in excess of its merchandise sold ; and to pay the debt, overstock in the shape of iron, cloth, railroads, houses, warehouses, municipal improvements, lands, etc., bought at high prices and destined to be sold or paid for at low prices, stands pledged first, the remaining capital of the borrowers next, then the profits and capital of banks as guarantors, and lastly that of depositors through the guaranty of the banks. This is the kind of credit which rigorous analysis shows to be the result of bank loans not duly limited by metallic reserve. The defect in economical and monetary science (for it is all one and inseparable) lies in not having ascended above results to their causes. My theory of money is furnished by absolute demonstration as well as by analysis.

Applying the theory to the present monetary situation in the United States, the prospect of a return to specie payments within the year 1878 and the first day of the year 1879 are not encouraging. It is impossible to sustain a volume of six hundred millions of paper under convertibility. Must not at least one third of it be retired ? If it is not retired gradually in the way proposed by Secretary McCulloch, must it not be retired into gold eagles and double eagles to the amount of all the gold the treasury will have ? Will the mercantile idea, represented in hoarding, be satisfied with any sum short of one hundred and fifty millions, so long as such a volume of paper remains not retired ? The premium on gold has nothing to do with the question ; the contraction of circulation has nothing to do with it. Notwithstanding this contraction, the same volume of paper remains. Whoever wishes to study contraction of volume in a currency which has been convertible, by the light of one which has not been convertible, will do well to look at

deposits and circulation as they were in 1857 and 1858, and as they were in 1873 and 1874, and since. Expansion of circulation is paying out money, and contraction of circulation is receiving it back. We have had enough of the latter, but none of that contraction of volume which must antedate convertibility.

Again, will any practical man hazard his reputation by asserting that there will be, under any system of convertibility, less than fifty cents of metal to every dollar of bank-note circulation and commercial deposits, which latter are equivalent to a like sum in bank-notes in the hands of depositors, and the reserve in the possession of the banks, — the two latter being mutually equivalents, while the banks can at the same time maintain the whole volume of loans? That was the proportion of metal in Scotland in Adam Smith's time, and even in the United States in 1857, the difference being that in Scotland the metal circulated with the bank-notes, while in the United States one hundred millions of it were hoarded; the remainder of it was in the banks and sub-treasury, and circulating alone without bank-notes in California. If it were practicable, on a return to convertibility, to limit *all* bank-loans to seventy-five, or at first eighty per cent. of deposits, all the hoarded gold would take its place by the side of bank-notes, and the full benefit, not of a metallic basis, but of a metallic limitation to the issue of notes and to the use of the reserve obtained. Before this can be done, writers on money and leading bankers must be convinced of the truth of my demonstration. That they will be in process of time, I cannot entertain a lingering doubt.

JOHN B. HOWE.

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INTRODUCTION.

I HAVE, after much reflection, been induced to write and publish this work, because I believe that the science of Political Economy, otherwise called Production and Exchange, has never yet been put on the proper foundation as to money, and production which puts money in circulation.

No science can be said, in a true sense, to be founded, until the remote causes which underlie phenomena have been unmasked, as far as human reason is capable. To treat effects as causes is not the way to establish a science. Some of the phenomena may be and have been, in this manner, partially explained, but never satisfactorily and clearly. Moreover, the subject of production and exchange is by no means simple, but vastly complex. It embraces the principal business of civilized man, from the cradle to the grave, in two grand fields: that which furnishes the absolute necessities of life, and that which furnishes those which are quite as necessary to maintain civilization. It has been hitherto asserted that there can be no excess of production anywhere. To prove that there can, and that the exchanges, on the harmony of which commerce and civilization depend, are thereby blocked, is one of the objects of this work. Another object is to show in what way, or rather by what cause or causes, the exchanges are blocked; and herein lies the most complex part of the whole complex subject. The immediate or proximate cause is inability to make sales of overstock, or, in other words, to exchange the commodities in overstock for commodities not in overstock. This is, on the face of it, mathematically impossible. The next cause in order, above the proximate (overstock)

and preceding it, is that which enables the overstock to be produced. This cause is complex, consisting of the credit of the producer, which enables him to borrow in order to produce on credit; the ability of the lender to lend, or in bank loans, more properly, as I shall show, to guaranty; and a rising scale of prices following the continually increasing circulation of money through bank loans, which, up to a crisis, gives the false appearance of an active and real demand for consumption. The whole subject is thus, instead of being very simple, as generally asserted by those writers who only repeat what has been written before, exceedingly complex.

All production by means of loans is production on credit; and bank loans increase by their volume that kind of production over and above what it would otherwise be. If there were no production on credit by means of bank loans, there could be no sales on credit to an extent sufficient to produce a commercial and industrial crisis. The labor directed to the production of the absolute necessities of life never caused such a crisis. It is the debt resulting from loans made to other producers, of whatever variety the product may be, which causes a crisis.

Again, bank credit is said to circulate as a substitute for money, and checks, drafts, and bills, and even promissory notes, are said to circulate in like manner. This, for want of proper analysis, and in the absence of it, seems to be the case; but such is not the case, otherwise what is called convertibility would be but a name and a shadow. Again, money in the shape of gold and silver coin or other metal is called an ordinary commodity; and the exchange of a real commodity needed for consumption, for this commodity money, the first exchange in "double barter:" but this is an utter fallacy, arising in like manner from the want of rigorous analysis. Still again, as a logical inference from the fallacious premises that coin is an ordinary commodity, it is supposed that if bank-notes are actually convertible into coin at the will of the holder, the grand object of convertibility is attained. It is supposed that the object of convertibility

is the right to convert and the actual conversion, when desired, of a promise to deliver a commodity, into the commodity itself. Therefore no matter how large or how small the reserve, provided the commodity is at hand in sufficient amount to meet calls. This is correct reasoning from utterly fallacious premises. / Paper supplies on the average exactly the place of so much coin as it displaces on the average in any given country, and it adds to the effective total of coin throughout the commercial world as well as to that of manufactured metal, precisely as if it were an equal amount of gold or silver. It takes the place and performs the office of so much coin in point of conventional value, and by taking its place carries into consumption in the arts a corresponding quantity of metal by cheapening it. > Moreover, as matter of fact, paper has occupied this place for generations. It is certain that convertibility is essential; but it is equally because thus demonstrably certain that the ordinary assumption that gold and silver coin are commodities possessed of intrinsic value is not the true, although it is the imaginary and usual reason given for it. The real truth is that convertibility is essential, because the metal into which the paper is convertible furnishes by itself the most stable currency in the world, — the annual increase to be added to the old supply, giving a ratio not in excess of the increase of commerce, — and because the metal is scattered by commerce in its tracks throughout the commercial world.

Such being the case, convertibility as a mere abstract term is not sufficient, but the manner and the kind of convertibility established become important. It follows from my premises, if true, that a fixed minimum ratio of metal to loans is essential, if the stability of a metallic circulation, or rather one approximating it, is sought. Again, silver and gold being in common use as money in the commercial world, by units of weight, and the product of each metal varying from time to time, the variations have necessarily averaged each other very nearly in point of value, because diminished supply increases value in proportion; and there must have

been (assuming both metals in universal and equal use everywhere as money) an equal amount of each coined, approximately, — the increased production of one being attended by loss in value of its mass, and corresponding appreciation in the other. The quantities actually coined and the quantities actually in coin are conjectural only; and the actual commerce carried on with either metal, in point of fact, has varied, and will continue to vary, the amount and value of each metal in the shape of coin, as one or the other metal is demonetized or monetized, from time to time.

Hence and for other reasons which will appear in the perusal of the work, I call it a new science of production and exchange. I do not ask any man to believe what is affirmed in this introduction unless his reason is entirely convinced by the demonstrations following. All works since the days of M. Leon Say written on this science in the main repeat their predecessors. It is time to bring to bear plain fact and rigorous analysis, in order to get rid, in this most complex of all sciences, of the fallacies which have heretofore passed for truth, because they have not been questioned. "Business" of some kind is what nine tenths of the men in the civilized world are engaged in. This business is producing and exchanging by the instrumentality of money, applied to paying for labor and commodities. If commodities were all consumed and no more produced, the use of money, which is commonly called the circulation of money, and which is nothing but giving money in exchange for the labor which first creates, and for all the labor which accompanies the exchange of the commodities, — the use of money, I say, would altogether stop, because the money, as such, could not be consumed, like other commodities. Hence, because the use of money begins with the labor which originates commodities, and ends with the extinction of that labor, the expansion of labor, which is but another term for the expansion of production, is the service which originates the use of money. Therefore, as production expands, the use of money expands with it. But the only object of production is consumption; and in order to enable

one man to consume, he must produce an equivalent to exchange for what he consumes, and on the average he can do no more. So far as he for a time consumes more than he exchanges, he locks up the difference for the time in overstock. But he cannot consume at all except by giving money in exchange for what he consumes, while he can get money only by selling what he has produced. For this his excess of consumption over and above his actual exchanges, therefore, he *must borrow money*. If manufacturer A. sells all the woolen cloth he makes as fast as he makes it, and if manufacturer B. sells all the iron he makes as fast as he makes it, to actual consumers, the expansion of production is balanced immediately by consumption ; and precisely to the same extent is the expansion of circulation (which is expansion of the use of money) balanced by the contraction of that use. This contraction is the return of an amount of money to A., who caused the production to take place, sufficient to cover the amount he paid for all the labor expended by himself and others on the commodity. If he used his own money, it is simply balancing the exchanges between production and consumption in the first and simplest form : the production and consumption of commodities balance their exchanges, and the use and retirement from use of what may be called the substitute commodity, money, balance their exchanges in like manner,—not as an active cause of the exchange of real commodities, but as the instrument by which the active cause works. But if A. *borrowed the money* to pay for the labor which caused the production to take place in the first instance, and B., as a merchant, by loan purchased the product of him, he borrowed the money to pay for all that labor and the labor which has since accrued on the road to market. And another result follows : B. has stepped into A.'s shoes as a borrower, and increased the volume of debt by profits before the product has reached market.

The circulation or use of money has been expanded by all the labor accrued since the first movement was made or blow struck by the workmen ; and no corresponding contraction has taken place by selling the goods for cash not

borrowed, to consumers who have actually made exchanges and thus obtained the money.

The expansion of production of commodities is thus exactly equal in this case to the expansion of money circulation; and the contraction of production by consumption is exactly equal to the contraction of circulation, by returning the money either to those who put it in circulation, that is to say, to use, because it was their own, or to those who lent it. Production and consumption are, therefore, the paramount forces which expand and contract the circulation of money. But the total of deposits is not only equivalent but much more than equivalent to an equal sum in bank-notes, because beside being equivalent it at the same time maintains a volume of production equal to deposits *minus* reserve. Hence the common opinion that deposits arise from sales of commodities is erroneous. I think I have proved the fallacy of that opinion with a certainty beyond reasonable doubt.

Deposits expand with production, and contract with consumption; and here we have the recorded history in terms of money, of industrial, commercial, and banking crises. Ideas, that is to say, current opinions about money, are embodied in the terms Commodity, Circulation, Plenty, Scarcity, Bank Credit, Bank Debt, Reserve, Bullion Value, The Exchanges, Cost of labor as a measure of values, etc. Of all complex subjects arising out of the development of human society money is one of the most complex and difficult to be understood; and the difficulty is increased by the terms embodying old theories, which the author of a new theory is still compelled to use, with the best modifications he can make, in order to be understood at all. This gives rise to apparent prolixity and frequently repetition. The cause of the great complexity of the subject is seven-fold: 1st, the unequal distribution of capital; 2d, the unequal application, as shown by results, of productive force to the production of absolute as compared with relative necessities; 3d, the use of money as a conventional commodity to exchange for labor and the commodities produced by labor;

4th, the use of money through ordinary loans in the absence of all banks, and with the use of metals like gold and silver only, for the purpose of buying labor and commodities; 5th, the use of convertible bank-notes; 6th, the use of inconvertible paper money; and 7th, the introduction of deposit and discount banking. Deposits are a consolidation in one mass of all the money received by one set of depositors for the results of labor in the shape of commodities sold to another set of depositors, which causes money to be paid out of the reserves of A., B., C., and D., consolidated with that of a great many others in the grand consolidated reserve, into the reserves of E., F., G., and H., forming another portion of the same grand consolidated reserve. All these reserves are in the same bank, and all make one mass. "Clearing," therefore, is not what makes the payments from A., B., C., and D., to E., F., G., and H. The money goes out of the reserves of the former and into the reserves of the latter, quite as effectually as if they were one hundred or one thousand miles apart. The clearing and the book entries following clearing are only the registers of the payments actually made. When there is no reserve in the vaults of a bank, or of some other bank or treasury for its account, banking is at an end for that bank. What really passes, then, in all payments made by banks for their customers is the money in the reserve.

The vast complexity of the whole process has produced the fallacy that a bank deals only in debt, which is generally established in the opinion of bankers and writers. This fallacy arises from bank loans. As loans increase bank debt increases, because production, which is variable, is advancing in excess of consumption, which is, comparatively speaking, invariable. This bank debt — every dollar and pound of it — is a credit to depositors, and has the same power in expanding the circulation, which is the use of the money in the reserve, by causing production to take place through loans, as if precisely so much gold or bank-notes were in the pockets of depositors: the total of deposits is in fact, as already stated, equal to a like sum in bank-notes in

the safes and pockets of depositors, *plus* the never-to-be-forgotten power of maintaining a volume of production, in the shape of goods, equal to the total of bank loans. The latter is a continual expansion of circulation, limited, not as in the case of the money circulation of France, by the exchange of commodities through commerce, for actual consumption, and therefore not by the consumption of commodities, but by their production. The process of what is supposed to be balancing the actual sales of commodities sold in a consumer's market, but which is a purchase on credit, in excess of markets, has given rise to the fallacy that a bank deals only in debts, and to the fallacy that deposits arise from the sale of commodities instead of from their production. An increase of deposits is equivalent to an increase of money, which is not the result of sales. Where goods produced by the aid of bank loans are sold to merchants who buy by the aid of bank loans, the debt to the bank thus created by the loan to the merchant, and giving rise to his bill or note, while at the same time it gives rise to a credit to his account in bank, gives rise also to an equal increase of the total of debt due depositors by the bank over and above reserve. The latter increase of debt balances the debt due depositors created by the first loan, because the buyer by his check in substance authorizes the seller or the bank as his agent to set off or balance his debt due the bank on bill or note by the bank credit belonging to the buyer, so far as that is needed for the purpose. The difference which covers profits, and which also results from the accumulations of labor, increases bank debt, and therefore deposits, to the extent of the difference. This looks like a balancing or set-off of debts, and such it undoubtedly is; but the set-off is only the register of the actual payments made out of one of the private reserves consolidated in bank into another; and when all the money in the consolidated reserve is insufficient to make the payments, banking stops. If the clearing is the payment instead of being merely a register of the payment, seventy-five per cent. of all the payments outside of bank are clearings also. This subject

would be of little practical use if it had no practical bearing upon the question of bank reserve. It is a subject of vast importance, because the debt theory leads to a constantly varying reserve, the money theory to a ratio of reserve varying as little as possible, and to the clearing up and making plain to every careful investigator (for no other can arrive at the truth) of the reason why the monetary system of France has maintained such a harmony of production. The monetary systems of France, Great Britain, and the United States are examined in this book from every angle of observation which the author could obtain. The great difficulty to be first overcome is the influence of old theories, so far as they are crystallized in terms of money and banking, which he asks his readers to overcome to the utmost extent possible, long enough to read understandingly what he has written on the other side.

Perhaps some further explanation of the sense in which new terms are used and old terms challenged is necessary. The use of the term "ideal" may be thought objectionable, but it conveys the true theory of money. The foundation or origin of money was in the necessities of mankind and the impossibility of supplying them readily through direct exchanges of commodities: an indirect mode was and is essential to supply the necessities of men as and when they arise. This can only be done by money as a universal substitute for one commodity in all exchanges, by implied or express convention. The natural development of the idea of money must have come from a valuation of two commodities in and by each other. This valuation must be by units, and therefore by a simple ratio between the two, in which the units of one commodity are compared with those of the other. Wants remaining the same, relative quantities of each commodity at hand or within reach, and relative quantities of each on hand at one time as compared with another time, are the controlling causes which determine how many units of commodities shall go into the numerator, and how many into the denominator; and this mental arithmetic can answer the question, whether production is going on in one

quarter in excess of another. Such a solution would be unnecessary in rudimentary society, but nevertheless it could be accomplished if society could have developed far enough to require it under such a system. So long as gold or silver was bartered in this manner, it was on the same footing with all other commodities, for barter can occur in no other way. It might be taken, it may be said, at first as a commodity, in most exchanges, by a tacit understanding that it would be received by others from the taker. This may have been, and the author will not say that it was not so, because for his purpose it is immaterial. One thing is certain: that in consequence of its universal adoption, it ceased to be a commodity governed by the ordinary laws of commodity, and became a substitute commodity, which is but another name for unit of valuation, purchase, and payment. If real commodities, which are now distributed by money, were not needed for consumption to satisfy human wants, but only to circulate from hand to hand, as money does, they would be ideal and conventional in the same sense that money is. Having no utility but that of circulation from hand to hand, for the purpose of distribution and redistribution, their respective values reckoned in each other would become abstract, and therefore ideal or supposititious, in respect to the total quantities or units of each actually existent, and would depend upon the quantities of each being at any particular time in circulation. All this may be affirmed of gold and silver circulating as money. Its value does not depend upon the quantity or mass of metal in existence alone, but upon the total number of units which are being circulated. The total quantity of units is important only in the sense that it limits the number which may be put in circulation, either more or less efficiently. If the units of commodities were, in the case supposed, distributed equally everywhere, a pretty even ratio of the circulation of the units of all commodities would result; but if a large number of those of one commodity could be accumulated in one mass, and always kept there, the circulation of the units of that commodity into and out of the mass could have no defined limits, and

mathematical analysis would fail, for want of sufficient elements, to determine the amount of abstractly possible circulation. All this has a bearing upon bank reserve.¹

To return to money as it was or might have been developed, the idea of the conventional unit has certainly followed the development of money, either consciously or unconsciously. But it cannot have been unconsciously in respect to mankind, whether we call it an instinct or an idea. There are abundant facts and an abundance of terms which demonstrate the truth of this assertion. Some of these facts are that inconvertible paper money has circulated for long periods, is now in circulation, and if it could, as it cannot, furnish steady prices might continue to circulate indefinitely, and gold and silver be abandoned. Why is this? Simply because the relation between the number of units which can be made out of all the gold in use as money in the world is one of numbers; divide it into units of weight as you will, all the units in each series will still have the same abstract purchasing power. Divide all the gold, half into units of ounces, and half into units of pounds, the purchasing power of the unit ounce will be to that of the pound inversely as the total number of ounces to the number of pounds. Introduce silver or copper as money with gold, and the purchasing power of a unit of the latter will be to that of either of the former, after sufficient time has elapsed, inversely as the weights of the respective masses of each in coin. These are some of the facts. The practical persistence of the idea is found in the name as well as the fact of token money, and in the fact that the bullion price of silver in London does not determine its purchasing power as coin in France or Germany, where, although coinage has

¹ It has a bearing upon bank reserve, because the units of commodities going into actual consumption, through commerce, are distributed by and therefore with the units of money. So long as this distribution of money is undisturbed by being massed in banks (that of commodities cannot be), it is impossible for A., B., and C., or any other capitalists, to loan money any faster than it comes to them through sales of commodities. But mass half of all the money in banks, and it can be loaned just as fast as it comes back into the bank, in exchange for commodities consumed, without any sale of commodities produced through the original loan having taken place.

been stopped, it still circulates; nor its purchasing power in India or China, where it still is the sole "standard." It will take time for the purchasing power of silver in India and its bullion value as shown in the commercial world's market in London to harmonize. This will take place only as the units of metal capable of being circulated in India and China are gradually increased. If the use, and therefore the value, of silver as money were not wholly conventional, and founded on the idea of promoting exchanges; in short, if it were used as an ordinary commodity like iron, and for the most part copper, the bullion price would be the measure of the purchasing power. What then has arrested the full development of this fundamental idea? It is the fact that a large amount of silver and gold is consumed in the manufacture of plate and in various other modes. The money value controls the bullion value instead of the latter controlling the former; but because an ounce of metal in coin and an ounce in bullion are substantially equivalents, the fallacy lurking in the assertion that a gold coin *minus* alloy and bullion of equal weight are one and the same thing is overlooked, and the whole case thus prejudged. The fallacy lies in the omission of the fact that a very large portion of the value of the metal as money, and *therefore* as ordinary commodity, is conventional and outside of the coin itself and in the commodities purchased by the coin, which value would be entirely lost by a general demonetization, and succeeded by that value which grows only out of the intrinsic qualities of the metal itself. This fallacy has arrested the full practical development of the fundamental idea, and the fallacy is crystallized in the terms Commodity, Standard, Measure of Value, Bank Credit, etc., while proof abounds, nevertheless, that the terms are misapplied. Gold cannot be a standard by which to measure values, like a yard-stick or half-bushel, because it merely embodies and limits the units in the denominator of a ratio; and such units cannot be a standard or a measure. There can be no standard, because there is a constant fluctuation between the number of units in the numerator and the number in the denominator. An

average within short periods, and the most perfect average attainable, arises from the use of the units of gold or silver distributed with commodities. There can be no double standard of gold and silver, and no threefold standard of gold, silver, and copper, or any other metal, because a unit ounce of copper or silver will be to one of gold in relative bullion value, under a general monetization throughout the commercial world, inversely as the weights of the respective masses in coin.

The Mercantile Theory of intrinsic value in gold and silver coin as ordinary commodities, while still retaining their character of coin, has rendered it almost impossible to ascertain what money really is. The author of this book wrote and published a pamphlet, in the spring of 1873, upon bank-note circulation and the necessity of a fixed ratio of reserve, and upon the latter subject in the "Banker's Magazine," May and June numbers, 1875, but could not make his argument clear, by reason of the old fallacy referred to. It is absolutely impossible for any man holding the commodity theory to answer intelligently the questions growing out of a well-put suggestion of Mr. Bonamy Price: Why should the Bank of England keep so much useless gold,—so much more than enough to supply all the ordinary calls? Why should it not be sent away where it is wanted, and sold? To keep a commodity like copper, iron, silver, or gold to regulate banking is utterly incomprehensible. But the author of any new theory about money has a thankless task. It is a dry as well as an incomprehensible subject under the commodity theory; and this keeps men who might master the subject from reading and investigating.

DEFINITIONS AND TERMS.

THERE is a want of precision in the language of the science of Political Economy, which is that of Production and Exchange. I shall call it by the latter title for the most part in this work.

The cause lies in the numerous fallacies resulting from taking only a surface or outside view of the phenomena, without subjecting them to rigorous analysis.

I call capital in a general sense everything not actually purchased or exchanged for consumption. Money is not real capital but conventional capital, and is possessed therefore only of conventional value. Nothing has value unless it can be put to some use. Money can be put to no use whatever except to exchange for all other capital than itself. Hence its value, as a matter of fact, lies only in the things for which it can be exchanged. But this is only another form of saying that money has only conventional value.

I call a commodity any thing resulting from the application of labor, or labor and capital aided by natural elements and forces, to other capital, and intended for consumption. A service arises also from labor, or labor and capital, aided in like manner. A commodity is a tangible and real, a service an intangible but real, result, important in the maintenance of civilization, and hence of production, as well as of the exchanges which maintain the latter. At the same time services are never overproduced. I say never overproduced because, although they may give rise to excessive unproductive consumption, they are immediately consumed, or, in other words, they leave no products which require a market after they are produced.

I call overproduction the production on credit of a tangible product which wants a market and finds it not, because it is relatively in advance of other production: the exchanges upon which the harmony of production depends are thus blocked, and the result is a commercial and industrial crisis.

I call the absolute necessities of life those without which life cannot be sustained, such as rude shelter, rude clothing, and food. In a state of civilization the term for all practical purposes includes food for the most part. I call the relative necessities of life all necessities other than those before mentioned.

I call bank debt the total of all debt due by all the banks in a country to all the depositors in that country other than banks *plus* the total of bank-notes issued by banks of issue, *minus* all metallic banking reserve and all the metal kept for the redemption of bank-notes. The total of this bank debt *minus* notes is a like total of credit to the account of all the depositors in the country, and made up of the total of credits standing to their several accounts *minus* the total of banking reserve before mentioned. I affirm that bank-notes pass and are used as money; I deny that bank debt, which is also bank credit, passes or is used as money, but assert, on the contrary, that banks pay out money from the reserve only, and receive money into the reserve only, while depositors, through the instrumentality of checks or otherwise, order money to be paid out of the reserve only, which is paid by the banks accordingly, while all the money they pay in is paid into the reserve,—bank debt, the equivalent of bank credit, being *only the result* of unproductive consumption occasionally, and production on credit chiefly, having no objective reality as a substitute for money. The money which circulates outside of banks must necessarily be the same kind of money which is deposited in, paid out from on check, and loaned by banks; there can be no essential difference between the two kinds of money. The supposed circulation or use of bank debt, otherwise called bank credit, for the purpose of paying debts is illusory, because,

among other reasons, all sales of goods produced on credit by the aid of bank loans, from producer to merchant, and from one merchant to another merchant, by the aid of bank loans, merely substitute one bank debtor or borrower for another, adding to bank debt due depositors, over and above reserve, the interest, profits, and charges which have accrued upon the goods in the seller's hands, while all sales for cash, and therefore for consumption, increase the reserve,—all of which will be demonstrated hereafter. As capital includes commodity, money being conventional capital is also conventional commodity, and bank-notes convertible into gold are thus conventionally used. I call the total number of units of metal found in any country the natural amount and volume of money for the country, resulting from commodities which have been exchanged for consumption, and from money paid out for labor and raw material as fast as commodities have been thus exchanged, and no faster. I call convertible bank-notes the equivalent of so many units of metal produced and coined, and the total of bank debt used over reserve the result and the record of so much additional above the natural circulation of money through the instrumentality of deposits and loans. I call the metal out of which money is made a commodity. Whoever buys it to work up into money, plate, or jewelry buys it by weight, but whoever buys money cares not for weight, if he can pass it for what he has taken it at. In other words, money must be coined in units of weight; but the unit is alone thought of, and not the weight, and a unit of weight becomes a unit of valuation, purchase, and payment. Money is, therefore, a series of units of valuing, purchasing, and paying power, which is but another name for commodity of conventional value. If money (*e. g.* silver coin) were a commodity like wheat, the late demonetizations which have made silver bullion decline very largely in London ought to have made *silver coin* decline in exchangeable value or, in other words, purchasing power in India and China as well as in France and Germany. But this has not been the case yet, because silver coin is not

an ordinary commodity but a conventional one; and because conventional, a unit of valuation. Prices, therefore, will not be seriously affected unless, and until gradually and finally, in consequence of an increase of money in those countries, by reason of the demonetizations, the purchasing power of silver as money is reduced until it coincides with that of its bullion.

The value of a commodity is not the labor it cost to produce it, for such a value is impossible, not only because capital and the elements and forces of nature contribute, but because necessity, both absolute and relative, causes the demand which is the foundation of value, while limitation of supply as it may be greater raises, and as it may be less lowers, prices. The *result* is that the wages of labor and profits are equalized by the natural tendency to equalization. Labor does not determine values, but values determine labor. I call the apparent value of a real commodity its money price, and its indirect but real value whatever the money obtained for it will procure of other real commodities.

I call the conventional value of any metal or other commodity used for the purposes of money a value arising from the convention established by the usage of a whole or a part of the commercial world, to make use of the units of that commodity as money. It is immaterial whether the mass of the commodity be greater or less, subject to the proviso that the units can be made of suitable and convenient size and the mass sufficient to distribute the units throughout the commercial world — weight or size of the unit determining its relative value.

The necessary and unavoidable result of this conventional arrangement is to make the resulting units of money, so far as they are used, the units in the denominator of a valuing-ratio at every sale, the units of goods in the numerator determining and fixing for the time, at each purchase, the conventional value of the money reckoned in units of goods. The value of the units of goods in the numerator is determined by the urgency of demand for them; by the quantity

in market waiting for buyers ; by the ability of the owners, through loans or otherwise, to keep the goods out of the market, unless they can obtain the price they demand for them ; and by the quantity of money, to purchase, in the hands of all buyers. The value of money in exchange, on the other hand, I affirm to be that which *results* entirely from the amount of it actually exchanged or sold for commodities. In other words, there is no real value in money, because its value is wholly conventional. It can have no value, therefore, except when and as it is used, while the value of all real commodities, like wheat, which are actually needed for consumption, depends upon all the elements before mentioned, and particularly upon the quantity on hand. The quantity of wheat on hand largely controls prices for the time ; the quantity of money on hand does not control prices, but the quantity of money paid out shows what prices are, while the quantity of money actually paid out is determined by the paramount forces of production and consumption, — supply and demand, apparent profit in overstock, and the ability, through loans or otherwise, to keep the overstock out of the market. Hence I call metallic money a conventional commodity, which in use becomes a series of units of valuation, purchase, and payment, in the several denominators of the several ratios of price, limited by the mass of the material of which the units are made. The units of bank or government notes, standing in point of volume in definite ratios with the units of metal distributed in exchange for commodities, labor, and capital throughout the commercial world, I call units of valuing, purchasing, and paying power, having a definite limit in the limitation of metallic units, and possessing equal value with them, so long as they exchange for them at par and for an equal number of units of commodities.

Where the term *Necessaries* is used in this work, without designating the kind, — whether absolute or relative, — the context will show which kind is meant.

SOME OF THE NEW THEORIES OF PRODUCTION, EXCHANGE, AND MONEY PROPOUNDED IN THIS BOOK.

THE new theories propounded in this book are : 1. That money in the shape of units of metal is not a commodity (although the material of which they are made is such) but a series of units of valuing, purchasing, and paying power, limited by the material (commodity) of which they are made. The advantages resulting from the use of silver and gold are, that, in consequence of the long period during which their masses in the shape of money have been accumulating the ratio of average increase of mass by new production is small, and growing smaller as the mass increases, while this tendency is counteracted by the large masses in the shape of manufactured goods and plate, and the ratios of increase continually going on, and carrying, on general average for the past, probably as much as thirty-three and one third per cent. of each metal into that use. The money value controls the bullion value, which for a time may be less than that of the money, while it cannot exceed it, and in the end exactly meets it. The cheaper the metal more, the dearer less goes into manufacture ; and thus the metallic units of valuation maintain themselves in harmony with commerce, and thereby with production.

2. Units of bank and government written promises to pay metal are also units of valuing, purchasing, and paying power, because the units of metal are no more, and they are either limited by the units of metal absolutely, approximately, or very imperfectly. They are limited absolutely when a government or bank issues paper, much less in vol-

ume than the total amount of money in a country can by any possibility be, if distributed naturally through commerce, — as in the case of a limited issue of treasury notes, and the notes issued by the Bank of England on the security of government debt, were there no deposit and discount banking in England. They are limited approximately under a series of banks of issue, whose notes are convertible on demand, as in Scotland in Adam Smith's time. And they have been and are limited very imperfectly under deposit and discount banking, even while convertible, in the United States. All units of metal distributed through a country in the absence of banks have been distributed to the present holders for the most part for goods sold for consumption, that is to say by commerce; the like may be said of paper limited by a definite amount; and, subject to some allowance, of paper approximately convertible, but not at all of that convertible very imperfectly. Paper not convertible is, in the absence of deposit and discount banking, limited only by discretion, but if prudently issued will very fairly represent in the hands of holders goods sold. Real redemptions of currencies consist in maintenance of steady purchasing power and conversion into other currencies. Redemption is substantially exchange of currency, whether metallic or paper, to meet the wants of holders and maintain purchasing power.

8. The natural and ordinary use or circulation of money consists in its regular distribution, through commerce, with the commodities it exchanges; and for the purposes of such distribution it may be called a conventional commodity, because it succeeds through the development of society and commerce to, and takes the place of, one of the two commodities exchanged through barter. Hence it is evidence in the hands of holders of so many commodities exchanged by them, or others in their behalf, through commerce, for use and consumption; but as it is also paid out for labor and raw material, it becomes also the evidence of commodities produced, but not yet sold. As no money, however, can be used for this purpose to any considerable extent, whether

by loan or otherwise without banks, unless it has first been received for commodities exchanged for consumption, production on credit through loans is balanced by consumption through commerce, within short periods, — as in France with her circulation when chiefly metallic, and substantially so with her inconvertible currency of late years, which retired her metal for the most part.

4. All the money in a country, with all the commodities in it, are distributed to persons, and the average money in every man's hands may be called his reserve of money, supplied by payments into it, and exhausted by payments out of it: units of money come into it in exchange for units of labor and commodities sold, personally or representatively; and units of money go out of it in exchange for units of labor and commodities purchased, personally or representatively. The supply of commodities comes through production by labor, and the purchase of commodities takes place to satisfy natural and artificial, absolute and relative, wants, and because they can be satisfied in no other way. Assuming these wants to continue the same, prices of commodities reckoned in the commodities they exchange for, — or, in other words, the relative quantity of one commodity required to obtain an absolute or fixed quantity of another commodity, — must necessarily depend upon the total quantity of the latter ready and waiting for exchange at the time, as compared with the quantity at another time, taking into account all the elements of variation, through time, space, and other incidents of like kind. The value of one commodity must therefore necessarily be reckoned absolutely in some other commodity, and relatively in all other commodities, and the variations in the amount of its own supply. There is no such thing as measure of values by the amount of labor the articles to be valued have cost: the articles are valued absolutely in each other, and the variations in value — wants remaining the same — depend upon variations in the quantities ready and waiting to be exchanged, and demonstrated to be thus ready and waiting by the fact that they are so exchanged. That commodities have at first look the

appearance of being measured in value by the units of labor they have actually cost, and still more perfectly by the labor it would cost to reproduce them, is true, because on the whole and in the long run they cannot, by the very necessities of the case, be sold at less than cost. Production would come to an end, and society itself, were it otherwise; for all producers must live, and in order that all may live each must exchange with the other at rates equaling cost. That units of labor do not measure units of commodities (the precious metals inclusive) is therefore a demonstrated proposition; that the labor which commodities cost is on the whole paid for by the price they bring, reckoned in each other, is undoubtedly true, because human necessities are the paramount forces which cause it to be true, as an effect following the cause.

Production on credit, of any kind, and keeping the produce out of a market, cannot, under natural conditions, be carried very far, because the producers are forced to sell from time to time by a natural necessity; but if by any artificial means it can be and is carried to an excess,—the resulting crisis precipitating all the relative overstock on the market,—the prices of the overstock will not be measured by the labor it cost, but by its quantity as compared with the quantity of commodities not in overstock, for which it seeks an exchange. The proposition I have established, although somewhat general and abstract, is no more so than the proposition that in the long run labor measures the values of all commodities which it subverts. The fallacy lies in calling an effect produced and controlled by a paramount cause the cause itself. It is a kind of fallacy which prevails in the science of Political Economy, and has rendered it impossible to establish any true science in respect to production, exchange, and the masterly power exercised over them by the use of what I will now call the conventional commodity, money.

It has led to the fallacy that gold and silver in the shape of coin are commodities in the same sense that gold and silver in plate, wheat, cloth, or iron are commodities, and so

to the mercantile theory of "intrinsic" value in gold or silver coin as an end in itself, and not merely means to an end. The most absurd results of this theory were attacked by Adam Smith, but not the theory itself. He believed in the theory, because he believed that labor is the measure of values. He mistook an effect for an active cause; he explored the river of distribution through commerce; he did not follow it up to the source of supply in production, and the forces behind production. If money in the shape of coin is an ordinary commodity, the end is attained whenever the commodity is obtained, or can at short notice be obtained. Hence, upon this theory, coin received in exchange for goods, and paper or bank debt which can be converted into coin at short notice and received in exchange for goods, are an end in themselves and equally efficient, always, as respects steadiness of prices, without regard to the circumstances under which they are obtained: if they are obtained in exchange for labor whose product can be kept out of market for a long time by means of bank loans, it is the same thing as if they were obtained in exchange for labor whose product must soon be sold, or for commodities which are going immediately into consumption. If the mercantile theory, that gold coin is a commodity worth what it cost in labor, and is an end in itself, be true, there is no danger from an excess of it, and every man ought to get all he can of it. Adam Smith's arguments against the mercantile theory failed to a great extent because he attacked the logical results of the theory instead of the theory itself. Gold and silver coin in their character of money cannot be ordinary commodities, because the use to which a commodity can be put in supplying a want determines the mode of its valuation, while the quantity, in the long run, determines the limits of the valuation. If wheat were used as money, its price would depend upon two things: first, the quantity of it actually used as money; and, secondly, the quantity of it actually consumed as food. There would be a mutual and perpetual conflict between these two valuations: the more of it in actual circulation

as money, so much greater the values of those commodities reckoned in it, and so much less its own exchangeable value reckoned in them; while the more of it in use as food, the higher its value, reckoned in commodities other than itself. The more of it in use as money, the cheaper it would be; the more of it used as food, the dearer it would be. But the latter is for short periods a steady use, and increases in steady ratios. The variations in wheat, therefore, if the production of it, by the aid of natural and human forces, were steady (as that of gold and silver are), would depend entirely upon its varying use as money, and the variation would depend almost entirely upon the variation in loans to producers, who would employ it both for circulation and consumption. If by any artificial contrivance, therefore, the wheat could be given an extra or additional circulation through loans, over and above its natural circulation in distributing commodities and supplying by labor the void to be filled by production, in consequence of their consumption, this additional circulation would raise the price of other commodities reckoned in wheat, and at the same time lower the price of wheat reckoned in them. The amount and the extent of the use, then, are what determines the price or exchangeable value of gold and silver coin, as well as of all other money. If its circulation is artificially doubled, there must be in consequence a rise of prices. But consumption, and therefore actual commerce, cannot by any possibility be doubled; it may be stimulated, but not very greatly increased within short periods, because limited by surrounding conditions. Therefore, if the circulation of money is artificially doubled, or even very largely increased, it must be caused, in the first instance, not by the distribution, and therefore purchase of, commodities, but by their production and necessary and unavoidable accumulation in overstock. Circulation, or use of money, is thus artificially maintained in excess of the commodities actually exchanged for consumption. Whether this can be done, — if done, in what way, — will appear in detail by reading the following pages. The use of money cannot be separated from money itself.

5. Money being circulated, or, in other words, distributed, in exchange for commodities to be consumed, and only as fast as they can be consumed, and in exchange for the labor to supply the loss created in commodities by their consumption, no great addition can be made to the supplying volume of production by additions to the whole volume of money units, either by the increased production of metallic material or by the issue of paper. Such additions, however, must necessarily stimulate the production which is carried on by loans, and in fact all production. The stimulus was applied slowly, or rather applied itself slowly, after the discovery of America, by increase in metallic supply. Production and, to a corresponding degree, consumption were advanced and promoted, not because there was a real but an apparent advance in the value of commodities. If a man invests his own or borrowed money in production, while prices are gradually rising, through the increasing volume of all money in all money reserves, he will, apparently to himself and others, sell at constantly rising and advancing prices. Thereby up to a certain point and to a limited extent production will be stimulated; but the nominal cost of production will rise continually, and cannot be far behind prices of the article produced, profits included. The reason is that the increased volume of money is rapidly distributed through the distribution of commodities, and its natural circulation is that of the commodities themselves. Production on credit after the expansion of money in volume cannot be carried on in excess of former production on credit before the expansion very far, because money has expanded in the hands of those who have received it in exchange for commodities and labor: the amount of money on loan, and waiting for loan, has increased in volume, but not in purchasing power. The same amount of labor can be paid for through the instrumentality of loans, and therefore the same amount of production can take place as before, and no more. In a country developed like France it would stimulate production to only a slight extent. The inconvertible bank-notes issued within the last seven years — 1870-1877, by the Bank

of France — retired the metal and convertible bank-notes formerly in circulation, adding to the actual volume of the circulation somewhat without increasing the “loanable capital,” which means the actual money waiting for loan, except perhaps somewhat as to its volume. No more production could take place in France than before. But let such an enormous volume of paper money be issued, by banks or governments, that the ability of the banks or governments to maintain, not convertibility merely, but exchangeable value or purchasing power is endangered, it will either depreciate or be entirely discarded, and go out of circulation as worthless. It will depreciate relatively to some other currency (that of the commercial world), or entirely lose purchasing power. So long as the chances in its favor are supposed to be on the whole greatest, it will circulate with great depreciation as compared with the money of the commercial world, while its purchasing power, until it is repudiated or likely to be so, will be governed by the rules before mentioned. The currency issued by the United States in immense volume during the late civil war fell enormously, as reckoned in gold, during the war, — the fall culminating at the battle of Gettysburg, — and rose rapidly after the end of the war. The French *assignats* and continental currency of the American Revolutionary war became utterly worthless by entire loss of purchasing power. The maintenance of purchasing power failed by over-issues.

6. The doctrine of M. J. B. Say and his followers, that there can be no overproduction, is absolutely true, but relatively false. It is *absolutely* true, because there can be no overproduction of the absolute necessities of life; it is *relatively* false, because there can be and has been an overproduction of the relative necessities of life, measured by the standard of the absolute. It is absolutely true, because the production of the relative in excess of the absolute, which limits it, can be carried on only for a time, and is stopped by a crisis in the relative. The progress of the relative is not only checked, but its producing power is cut short, so as to maintain an average, in the long run, with the absolute,

which limits and controls it. National prosperity is not an absolute or independent thing, existing by itself alone, nor is it blind progress of production in certain quarters in excess of other quarters. It is the maintenance of population in an average state of comfort, proportioned to the advance of civilization, with a progressive and equal advance in all the capital devoted to production everywhere, and, subject to this law, of all the energy and force possible applied to production. There can be greater or less economy employed in respect to the consumption of the relative necessities of life; there can be comparatively slight variation in the economy employed in respect to absolute necessities. It is asserted by some that improved machinery and improved processes, by others that tariffs and taxes, are the causes of overstock in recent times. This is a mistake. All improvements in machinery which save hands and accelerate finished product, and all implements and processes which save hands and increase product of raw material, constitute precisely so much human progress and advancement. They merely demonstrate that the surplus of hands must be sent away to produce absolute necessities; they are not the original cause of overproduction. The *cause* is relative overproduction; the *question* is, What are the conditions which, in the first place, render overproduction possible at all? and not, What are the conditions which aggravate it? Neither can taxes of any kind, tariffs included, be an original cause; they are so much paid by producing consumers out of real or supposed profits or income for the support of the government and the payment of its debts. The greater the tax, the greater the amount of unproductive consumption, so far as respects the total fund which pays the total tax. The unproductive consumers buy most of the absolute necessities, and have so much less money left to buy the relative. If they were to become self-supporting, because government could get on without taxes, probably one half would go to producing absolute necessities, and thus help to restore the balance in favor of the absolute instead of, as before, helping to turn it the other way. To this extent, and no more, do

taxes of all kinds — tariffs included — help to bring on commercial crises.

7. I now come to consider another subject treated in this book, and practically the most important of all: the conditions which render possible that excess or overproduction of the relative necessities of life which brings on an industrial and commercial crisis. The forces actually in operation behind money are paramount to money itself; that is to say, to the circulation of money. Every merchant or manufacturer who has had a large stock of goods which he would be glad to sell if he could at less than cost, and indeed at any price which would enable him to pay his debts, knows this to be true, and that it is not an abstract proposition but plain matter of fact. Money is plenty enough, but producing consumers will not buy, because they are already supplied; and they have been supplied by selling all they had to sell. Had the merchant and the manufacturer foreseen the overstock and the fall in prices, the latter would not have produced and the former would not have bought. Why did they not foresee it? The propositions demonstrated already show that as goods increase, while demand, which practically means ability to purchase and consume, remains the same, prices of goods fall. Therefore, as the overstock was rising, the resulting fall in prices ought to have demonstrated loss immediately, unless loss was concealed in rise of price. But how could prices rise, when no additional issues of money were going on? and how could loans be obtained to create the overstock? Both these elements are found in deposit and discount banking, and they are found nowhere else. Consolidate one half of all the money distributed as goods have been distributed in one reserve; lock up seventy-five or eighty per cent. of it indefinitely; receive deposits and pay out deposits upon checks, and the stream of incoming will average with that of outgoing money, and there will be the same number of exchanges by the payment and receipt of money as before. Circulation outside of the "reserve" will be replenished by and will itself replenish the reserve. But is this in any sense a re-

serve? Would it not require a stretch of the imagination to consider this a reserve? It all belongs to depositors, as well as the money locked up. But now suppose the custodians or bankers of this consolidated reserve to unlock the money which is not in the "reserve," and loan it gradually. The money goes into circulation, and as it does so, gives rise to bank loans, and we have a bank with a modern reserve, which it supposes to be its own because it has borrowed it from the depositors. But the metal and bank-notes loaned departed because they were in excess; yet the "reserve" is just as able to effect all the exchanges of depositors as it was before. A vast change, however, has resulted. What is it? The "reserve" was fully equal to all the calls made upon it before any loans took place, but it was also equal to much more. It could be reduced just so long and just so far as would consist with the maintenance of the ingoing and outgoing streams; and the two streams could have been enlarged in volume, and the reserve at the same time much reduced, before any loans were made at all. It is precisely so now after the loans are made, although there is nothing to show for the metal and notes which have departed from the open treasury but an equal amount in bank debt due depositors, over and above reserve. What has the departed money accomplished before it took its flight? It has caused an equal amount of production on credit through bank loans. The money could be used for no other purpose, because the "reserve" was and still is equal to making all exchanges through the outgoing and incoming streams. But the departed money left behind it, and in its place, a power equal to itself in volume, brought into existence by production on credit, increasing in volume with it, and equal — every dollar or pound in it — to every dollar in metal and notes loaned. The latter departed, because the *possible* expansion of the circulation or use of the money in the reserve, by the aid of the resulting bank debt, operating like a power or series of powers in the hands of depositors, by the instrumentality of checks, was fully equal to the *possible* circulation of metal and notes when all the money was in the

hands of depositors. The *actual* expansion which took place by loaning the metal and notes from time to time resulted in an equal amount of production on credit, and an equal amount of debt due the bank, but made no change in its debt due depositors. This power to use the reserve was and is precisely equal to all the possible circulation which could be accomplished by the departing metal and notes. The latter departed, because they were superfluous; they were superfluous, because their issue as it proceeded left a substitute in their place previously existing, — a power to work the reserve, so to speak, in such a manner (by the instrumentality of checks) that the metallic pieces and the bank-notes in the reserve equaled in efficiency all the money before it was deposited. But one inexorable condition attended the loan of the metal and notes, in addition to the creation of this equivalent power. That condition was the purchase with the metal and notes of an equal amount of labor, or, what is the same thing, commodities which cost labor. The purchase of commodities had precisely the same effect as the purchase of labor, because it enabled the buyers to buy on credit. I say on credit, not merely because they borrowed the money, but because they borrowed it in excess of all the exchanges of commodities, and therefore of money, which had up to that time taken place. It was giving the money a circulation on credit, because it was in excess of all the exchanges the money had previously accomplished, when, as already shown, the natural use of money as a conventional commodity, which is but another name for unit of valuation, purchase, and payment, consists in exchanging it for commodities, and labor to produce commodities, as fast as consumed. It is the natural use, because it naturally arises if money is left to itself, inasmuch as money follows commodities. By the natural use of money there can be no excessive production, any more than under a state of barter, because, under either, production on credit is very limited. But the introduction of deposit and discount banks has so complicated the subject of money that it is the most complex of all the problems of

the time, while it has a more important bearing than any other upon the comfort and happiness of men. Deposits do not create any "inflation" of the currency, as sometimes supposed, because they increase in exact proportion to the production of goods, and no faster. A dollar or pound in goods appears for every dollar or pound in deposits; an inflation of currency appears in an issue of money which is in excess of goods. But the expansion of deposits raises prices, although commodities increase at the same rate, because loans enable producers to keep their stocks out of market; and this, until the overstock is so great as to bring on a crisis, enables them to sell at a profit. If bank loans were made only to manufacturers, merchants would have little overstock, comparatively; the overstock would be left in first hands, and sales for cash, to distribute to actual consumers, could alone reimburse the manufacturers and enable them to produce again. It is the purchases by merchants which cause no actual exchanges of commodities to take place, that carry up and maintain the prices of the overstock. This is buying on credit, undoubtedly, even if gold eagles and sovereigns are handed over, because no actual exchanges of commodities take place.

8. The next and the great and important matter, practically, is the remedy for all this. Gold and silver furnish the steadiest circulation possible—I had almost said conceivable. If harmony of production, with as little loss of energy as possible, the most even distribution and the greatest accumulation of wealth possible, with steady wages and profits and a minimum of bankruptcies, be on the whole and in the long run desirable, then a metallic currency, without banks of any kind, with banks of issue well regulated, or with banks of issue, deposit, and discount having a reserve artificially maintained in nearly as even ratio as possible with the total of bank debt over bank credit, in every bank, is desirable also as the condition precedent. The object to be attained by such a reserve will be fully and in various forms shown in the following chapters.

Suffice it to say now, that by keeping a fixed ratio of

reserve we accomplish the same object as would have been accomplished when bank loans were inaugurated in the case assumed, by stopping the loans of depositors' money after it had run down to twenty per cent. of its total, and absolutely refusing to make any loans when it had reached that point, and waiting until it began to increase before making any more loans. This is to limit production, when it has reached eighty per cent. of total deposits, thenceforth by actual commerce,—that is to say, by consumption. The practical problem, how it can be done, is given hereafter.

There are other new but subordinate propositions maintained in this book, but I have given the principal and important ones, on which the others hinge, and I would not now break the force of the former by contrasting them with the latter.

POLITICAL ECONOMY.

CHAPTER I.

DEVELOPMENT OF MONEY AND ITS USES.

THE question may be asked, Why place the subject of money in the first chapter of a book written upon Political Economy? The answer is, because Political Economy is the science of Production and Exchange, and the invention of money is the first step towards making exchanges, without which there could be no progress in production itself.

Money was invented, it is commonly supposed, to measure the value of things produced and ready to be sold. This assertion is absolutely true, but relatively false; it is absolutely true because that is one of the objects for which money was invented, and, according to Montesquieu, the only object attained by the money of a certain African tribe, — ideal units called Macoutes. This money did not supersede barter, but enabled barter to take place with more facility. Barter is the exchange of one article or commodity for another; and it was facilitated in this tribe by the use of the units called macoutes. If one commodity were valued at two macoutes, the other might be valued at three or perhaps four macoutes. Whether such a tribe and such a mode of valuation ever existed, I am unable to say, but certain it is that Montesquieu has here given us the money of civilized men in its first stage of natural development. It is commonly supposed and asserted by writers, that money is the measure of value, as a yard-stick is of cloth. This is true, but if it contains the whole truth in respect to money, we are still in the

condition of this African tribe. The macoute was an imaginary unit, by which the relative values of two commodities, brought together by two parties to be exchanged, were determined. The yard-stick measures length and breadth, and thus furnishes a unit of length, a unit of breadth, and a resulting unit of surface, which is actual and visible. The macoute, or unit of valuation, is neither actual nor visible, because it is entirely abstract and ideal, like all units. It is a method of measuring the value of one commodity by comparing it with another, through the instrumentality of an abstract unit which has neither length nor breadth.

It is impossible to separate the macoutes from their use: their use is the measuring of two values by means of a ratio, and a ratio is necessarily abstract. One thing is certainly true of these macoutes: they are units of valuation, and therefore may be said to measure values of commodities. Another thing is equally certain: that abstractly there is no limit to the units in a ratio. How, then, can the macoute be said to measure values? Can it by any possibility be said to be a measure, if it has no assignable limits? Surely not. But has it no limits? Surely it has, because it is limited by the commodities actually exchanged. This is the analogy, and the only analogy, between the macoute or money unit, the yard-stick, which measures surface, and the pound, which measures weight. Here lies the true germ of all money. Now let us take one step more in the process of development. The first step is barter, and the commodities are exchanged by means of an ideal unit, which, although it has no local habitation, has a name, which is, macoute. The name, however, is not essential: if one commodity be counted 2, the other may be counted 3 or 4. The second step is to dispense with one of the commodities, and give, not only a name, but a local habitation to the ideal unit called macoute. Let us suppose that after various commodities have been adopted and superseded by the advance of society silver is introduced. Now how can silver be used as a commodity of universal exchange? It is absolutely, I had almost said mathematically, certain that it can

only be used as a unit of valuation like the macoute, with this qualification, — that the ideal unit called macoute was limited by commodities actually exchanged for each other ; the same unit, embodied in silver, is now limited, not by commodities actually exchanged for consumption, but by the number of units of any given weight which can be made out of all the commodity called silver which can be obtained now and in the future. But says a theorist, who, although he assumes to be a disbeliever in the Mercantile Theory of gold and silver coin as being an end in itself, and not merely means to an end, still clings to the theories of Adam Smith and others, that gold as well as silver coin is a commodity, which is still exchanged in its character of a commodity, and therefore bartered for all other commodities ; being measured in value as a commodity by the labor required to mine, smelt, alloy, and manufacture it : How can silver coin be a mere unit when its value as coin differs so little from its value as bullion ? The latter assertion, I reply, although true in one aspect, is false in another, as I will shortly demonstrate. The number of silver units possible, as I have already stated, is limited by the material out of which they can be manufactured. This material is a commodity, but the units which can be manufactured are, in their character of units, certainly not a commodity. Some weight must be given to the unit. If one nation adopts a pound, another may adopt a half, a quarter, or an eighth of a pound, an ounce, or even a pennyweight, as the unit of weight, again subdividing the principal unit, or not subdividing it, as it may choose. If one nation adopts a pound, and another a half pound, as the unit of weight for its coin, it is mathematically certain that the purchasing power or value in exchange of the latter must in the abstract be to the former as the weights ; that is to say, directly, or as one to two. Valuation of all sorts, therefore, by way of the process or invention called money, must necessarily be by way of abstract or ideal units, limited in one of the two modes : 1st, by commodities, as in the case of the macoutes ; and 2dly, by the number of units which can be furnished by any commodity universally agreed upon

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for that purpose. From these two modes of limiting the number of units of money has been developed in modern times a third, which is a promise localized on paper to deliver the units of metal before mentioned and token or subsidiary coins for small exchanges.

The latter two are not limited by the number of commodities actually exchanged for each other, as in the case of the *macoutes*; nor are they limited by the amount or quantity of the commodity or material, as in the case of units of metal of any given weight coined by governments for individuals, or weighed out as units in the absence of such coinage, by individuals, as in the early instance recorded in the Old Testament, when Abraham weighed out the shekels, and delivered them in payment for a burial-place. Paper promises to deliver units of metal of a given weight are not, in the second place, limited, like the *macoutes*, by commodities actually exchanged, because there is but one commodity present to be exchanged, and that commodity is exchanged for the paper. Hence it follows that inasmuch as paper and promises which can be made on paper are practically unlimited they must be artificially limited, not only by the solvency of the issuers, but by the number of units of metal which have been manufactured out of the metal into which they are convertible. To make this proposition clear, I affirm that when barter is by the development of society cast aside, and the unit, which we will call a *macoute*, and which has no existence but in name, develops into a unit, having not only a name but a local habitation in a unit called money, and therefore a necessary limitation in and by the number of units which can be made out of the material used to manufacture or even simply to weigh out the unit of money, the further development of the paper unit of bank or government debt, in the shape of paper promises to pay and deliver on demand units of metal by weight, ought to be limited by the total number of units of metal existing in the shape of coin throughout the commercial world. Now it is a conceded point, that there must be what is called a metallic reserve to insure such convertibility; but

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it is asserted by all writers that this reserve may vary continually. This assertion is the logical result of the mercantile theory of gold and silver coin being an end in itself, and a commodity possessed of "intrinsic value." Adam Smith attacked successfully some of the abuses or results of this theory; he never attacked the theory, because he believed in it himself, as did also M. J. B. Say. Both believed gold and silver coin to be a commodity possessed of intrinsic value, measured by the labor it costs to place it in the shape of bullion in the market. This theory is false in reference to any commodity, as I shall show in the course of this work, and I will shortly demonstrate its falsity in respect to gold and silver coin.

If metallic money is limited by the number of metallic units in existence, paper money, having a reserve of metal behind it, should therefore be limited in like manner; otherwise it cannot be limited at all, because it cannot be limited by commodities actually exchanged.

Hence it follows that the doctrine of those who assert that "convertibility" alone is sufficient is false. They found their opinion on the mercantile theory of gold and silver coin as a commodity having intrinsic value in itself, and being therefore an end in itself, instead of being, as it really is, only means to an end. Because metallic money is not a commodity, but a process and a series of units, having its limitation in the quantity of material out of which the units can be made,—exchangeable value or purchasing power being therefore inversely as the number of units paid out for a given number of units of commodities,—having as money no intrinsic value in itself, but extrinsic value in the things it universally exchanges for, it follows that a paper currency, in order to be limited like a gold and silver one (or, in the words of those who were the founders of the Bank of England as modified by the act of 1844, in order to vary as gold varies), must have a definite amount of metal behind it: the amount of paper must be in a definite proportion to that metal. But has not the paper of the Bank of England a definite proportion of gold behind it? Surely it has. Does not the

paper, then, vary as gold varies? Surely it does, and must necessarily do so. Has it then accomplished the object of its founders? This question cannot be answered, because it cannot be known what their object was, further than their words imply. But has the paper of the Bank of England been limited by the number of units which the metal gold can furnish? Surely it has. But has the bank failed to accomplish the object desired in any particular? It surely has; because the government has been compelled in the midst of a commercial crisis to abandon the principle upon which the bank was founded. What was the cause? To understand the cause, another step in the development of this now most complex process of money must be examined; and I have referred to the Bank of England only for the purpose of illustrating this development. The units of metallic money, having a local habitation as well as a name in metallic coin, and being limited in number by the quantity which the commodity or material of gold and silver (it is immaterial which of these latter two terms we use) can furnish, and being paid out or exchanged for labor and raw material and other commodities, are necessarily and naturally distributed throughout the commercial world, because the commercial world's money. How are they distributed? By commerce, I answer, because they can be distributed in no other manner, and by no other means. But commerce is the distribution of commodities by means of exchange, with a value added to the commodities by means of the distribution. The distributor or merchant is in this sense, and in no other, a producer, because he produces and adds to the commodities exchanged an additional value by reason of the labor and capital required to make the exchange: he is not the first producer who originates the commodity. Gold and silver coin are therefore distributed as commodities are distributed, and those who distribute the most have the most money. Such being the natural distribution of money in the shape of metallic coin in harmony with commerce, it follows that any other distribution of it must necessarily be either in excess or defect of commerce. But the distribution cannot by any possibility be in defect of

commerce, that is to say short of actual commerce, because commerce distributes commodities, and the exchanges are all made by money. Therefore any other than the natural distribution of money must be a distribution in excess of actual commerce. Money is distributed to-day in France by actual commerce; but establish a bank of deposit in Paris to-morrow, of one thousand millions of francs, and let the money be paid out by the instrumentality of checks. A part of this money will answer actual calls, and the remainder may be locked up for years. Now open the vaults and let the managers loan all the money they choose, subject to the condition of answering all calls by check. This money will not be distributed by commerce, but by production; not according to the actual distribution of commodities as before, but according to the actual production of commodities. Introduce this system throughout France, and place no limit below which the "reserve" shall be allowed to fall, and there is no assignable limit to the number of units which can be put in circulation but the limit of possible production through payments made for labor and raw material.

This production I call, in the following pages, Production on Credit, in advance of actual commerce. Production by means of a loan, at any time or under any circumstances, is production on credit; but where money is distributed entirely by commerce it is production warranted by a distribution already made for the purposes of consumption.

Because this system prevails in England is the reason why the Bank of England has failed. Hence it follows that the only check to the causes which have produced the failure is to fix a definite point below which what is called bank reserve shall not go. The meaning of this language, in other words, is, to fix a definite point by means of a definite ratio of reserve, when and where all further loans to producers shall stop; thenceforth limiting production by actual sales for consumption.

Now all this is unintelligible upon the mercantile theory of intrinsic or commodity value in gold and silver coin, but rigorously true and clearly following from the demonstrated

truth that all money is but a series of units, limited either by the commodities actually exchanged for each other, or by the units manufactured out of any given material. It is impossible that money should be anything else. Suppose for one moment gold coin to be a commodity like wheat. The wheat must first be valued in the coin, and then the coin in the wheat, or the coin must first be valued in the wheat, and then the wheat in the coin, by means of a relative valuation of each in the other. This relative valuation requires the mental use of units of valuation like the macoutes, and then coin would cease to be money. It is utterly impossible for money of any kind to be anything but a limited and localized macoute. Paper money without any metal to limit it is limited only, so far as it is limited at all, by the units of all commodities, as well those produced as those actually distributed for consumption. This is the limit of all paper money issued to solvent borrowers. If issued only to such borrowers, and if production could never by any possibility gain upon consumption, — the latter balancing the former, — prices would be steady, and paper without any reserve might then be said to vary as gold would vary. But to distribute money by means of loans, in proportion to production, by paying money for all the labor which causes that production, when production is rapidly gaining upon consumption, is to cause unsteady and rapidly advancing prices, until arrested by a crisis in production and labor, which crisis, as an active cause paramount to all others, turns the scale of prices upside down. But there is a practical demonstration, now working itself out before the eyes of the commercial, banking, and scientific world, that silver coin is not a commodity. If it is a commodity, why has not the exchangeable value of silver coin in the countries where it remains in use followed the bullion value of silver in the world's market in London? Governments cannot fix the value of commodities. Why has not silver lost exchangeable value in Germany and France corresponding to the loss of bullion value in London? Why has it not lost purchasing power in the East Indies, and China, and every other country where it is still

in use as money? The true answer is, because the exchangeable or unit value of coin as money, and not as material to manufacture money, can change only as the units are coined and distributed through commerce. The coin value will then, after the lapse of a considerable period, coincide with the bullion value; and such will be the fate of gold as coin. The loss in the purchasing power of silver will be balanced by an equal gain in gold; the gain in the latter will take place as slowly as the loss in the former; and neither will be productive of appreciable loss to anybody. The inconveniences which would result by the adoption of silver by a large commercial nation like the United States, acting singly, are discussed hereafter.

Money is the all-important subject in modern times, especially for commercial nations of such wealth and such productive energies as Great Britain, France, and the United States. This is the reason why I have made it the subject of my first chapter; for it is impossible to have a correct conception of Production and Distribution, or Commerce, without a correct conception of money and its uses. The use of money, therefore, by way of loans, causing an expansion of its use or circulation, I shall call expansion of circulation, and its return or payment back to the lender a contraction of circulation. There are two aspects of Production and Distribution: first, production and distribution as *resulting* from the use of money; and secondly, the use of money itself as it appears in the increase or diminution, the expansion or contraction of its use, when its natural distribution is not disturbed; and thirdly, the unnatural or artificial disturbance of that distribution — unnatural because not allowed to remain where the natural distribution of commodities, otherwise called commerce, left it — by the enlargement of the use or circulation of money beyond what could follow that natural distribution, by consolidating it in large deposit reserves and thus giving rise to increased loans.

Money, under these different aspects, is the principal topic of the following pages, in connection with the production and distribution which it causes to take place; and Produc-

tion and Exchange constitute the science of Political Economy. The mercantile theory of gold and silver coin as a commodity possessed of intrinsic value has undoubtedly solved some important truths; or, rather, it has not prevented the solution of them, because, as a result, or as an effect of gold and silver having come into general use as money, it may be regarded as substantially true. *Because* gold and silver are and long have been in use as money, they possess a value in exchange which they would not otherwise possess. Vast masses of these metals have been manufactured into coin, which would never have been mined had they not been long before in use as money; a dollar in gold is probably not worth all the labor it cost, but, on the average, much less. If, however, the miner cannot earn a living of average comfort at mining, and a little more, he will in the end abandon it and work at something else. In this sense and to this extent the *result* of all the causes in operation is to pay the miner for his work a fair rate of wages. The Chinese pursue in California the business of mining at the rate of fifty cents or less per day, where American miners have long since abandoned the ground.

What I ask the reader to do after perusing this chapter is to divest himself, if he can for a time, of his preconceived ideas of money and the "circulation" or use of money. Gold or silver coin is not a commodity like wheat, because it is not governed by the laws of ordinary commodities. Can any people or any government, by a mere conventional arrangement, either raise or put down the exchangeable value of wheat, except by raising the cost to the consumer through a tax or tariff? Can they do it by a mere legislative enactment or by a decree? Can wheat, without the imposition of any tax or tariff, and by mere legislative enactment, or by decree or order, be made worth \$1.50 per bushel in London, and \$1.75 in Paris or Berlin, assuming that it would cost less than a cent and a half, per bushel to carry it from London to Paris or Berlin? If gold or silver coin is a commodity in the ordinary meaning of that word; if, as the followers of Smith and Say assert, an exchange of wheat, cloth, or iron,

for gold or silver coin, is an act of barter, like that of the savages who reckoned in *macoutes*; and so, if the owner of a commodity wants to obtain another commodity in exchange for it, he must first barter his commodity for money, and then barter his money for the commodity he wants, — performing in this manner what they call an act of double barter, — then, instead of exchange having developed upwards, it has developed downwards; because two acts of barter are required to satisfy our wants where one was sufficient for the savages who used the *macoutes*. Again, could all the world abandon the use of wheat and live on a substitute? Could all the world redeem all the wheat in the world with another commodity or substitute, and put the wheat aside and refrain from consuming it? This surely cannot be done with wheat, but it can be done with gold and silver coin; and it has been partially done already in respect to silver, as well as gold. What is the reason for this difference? It surely is not that gold bullion or silver bullion is not a commodity, because it is impossible to doubt upon that point. Gold bullion and silver bullion are unquestionably commodities; quite as much so as wheat. Wherein then lies the difference between a dollar in gold or silver and the gold or silver bullion contained in it? The difference lies in the fact that the gold dollar as well as the silver dollar is a unit of value, of purchase, and of payment, and can by no possibility be anything else, while the metal contained in the dollar, aside from its use as money, is not. But suppose the bullion to be assayed and weighed (and to pass as readily as the coin, as it did in olden time), is there then any essential difference? Surely not; the difference is only superficial.

Where then lies the true difference between gold and silver as bullion and gold and silver as money? The real difference lies in the fact that all money is a human contrivance: it is a process: it is a method of calculating values by means of a ratio: it is a conventional arrangement, and therefore the value of the bullion, so far as that value is enhanced by its adoption as material to make units of money, is altogether conventional; and being conventional it must neo-

essarily be used in the shape and character of a unit of valuation, purchase, and payment. The greater the number of units on the average employed to purchase units of commodities, the higher will be prices; the less the number, the lower will be prices. Hence *the part or portion of bullion value* which convention has given convention can take away. If convention takes away a portion of this value in any one country by demonetization, it is impossible for this demonetization to take away the purchasing power of the bullion in its character of units of valuation, purchase, and payment in any other country faster than the number of these units are increased in that country by coinage, in consequence of the cheapening of the bullion through demonetizations elsewhere. This is a gradual process, and when completed the coin value and the bullion value will coincide, and not before. The reason for all this is, that the value of bullion in its character of money is conventional. If a part of the commercial world abandons the convention, while another part adheres to it, the market price of the bullion, whether gold, silver, tin, or copper, must fall, but the purchasing power of the unit of bullion, in those countries where the bullion is still used as money, must to a mathematical certainty continue the same, until the units are gradually increased in number through the cheapening of the material of which they are made. Coined bullion being a series of units, all valuations are by ratios, and the resulting purchases are accomplished by delivery of the valuing units localized in the bullion or the bank or government note; and they *might be*, although they are not, localized in mercantile paper, or bank debt, transferred by check. Hence, in the following pages, I sometimes call the unit of valuation, purchase, and payment (money), whether localized in coin or paper, a conventional commodity, because by that tacit convention which has been developed out of the progress, out of the absolute and out of the relative wants of mankind, one of the two real commodities actually needed for use and consumption, and brought together, and valued and exchanged for each other, by the process of macoutes or

any other contrivance of valuation has given way to a conventional commodity having universal exchangeable value as such wherever it is used. The productive energies of all English speaking people have been developed to a high degree. All have a general knowledge of manufacturing processes, the division of labor, and the improvements in agriculture, in manufactures, and in machinery of all sorts. The problem is to harmonize production; and this can only be done by preventing as far as possible production on credit, which cannot proceed very far without borrowing largely the necessaries of life under color of the conventional commodity called money, — from proceeding to that point where the only remedy is a reaction in the shape of a commercial crisis. Hence, in order to demonstrate my propositions in relation to this all-important subject, which really embraces all the practical knowledge required to understand the forces at work in production and exchange, I shall examine, in future chapters, the numerous complex processes developed from the use of this conventional commodity called money. This examination is the principal subject of the several chapters of this book; and the necessary consequence is the repetition from time to time of the same general proposition, as the result of the analysis of the various processes, which, although apparently different in themselves, lead substantially to the same result. He who can master all the movements and all the results of that conventional commodity called money, can master the movements and results of production and exchange; and he who has mastered the former, has already mastered the latter. In this chapter I have given a general outline of the real character and actual uses of money; and this will prepare the reader to comprehend more clearly the next chapter, and those which follow. The analysis of banking in England and the United States in the following chapters is perhaps too minute; but the prevailing opinion, that commodities give rise to bank credits which are an objective reality or cause, instead of being, as they really are, the mere effect or subjective result of using the money of depositors — thus giving it an additional circu-

lation over and above that given it at the same time by the depositors, who are the real owners of the money, — renders this minute analysis necessary. It is necessary in order to demonstrate that it is not the depositors' credit or the bank's debt which pays for commodities, but the money in the bank reserve, which is the consolidation of all the reserves of the different depositors, and which, through deposit and redeposit, is amply sufficient to meet all the calls of depositors after having made the whole volume of loans. These loans have been made once for all, and need no more money to sustain them; it is the uncertain and varying reserve, out of which and in which the units of coin and bank-notes which pay for commodities are placed from time to time in the various ratios of price, and which assume the appearance of credits used instead of money, — it is, I say, this uncertain and varying reserve which makes the unit of gold, of silver, and of bank-notes virtually an equivalent for so many units of bank credit. This happens, because all money is but a series of units as before stated, and the real and only utility of such a varying reserve is, that it limits, not loans, — for that is impossible with such a reserve, — but the scale or height to which prices can be carried, and therefore the depth to which they can be lowered; such a reserve is an imperfect limitation to the whole volume of money units in circulation, and therefore in deposit. The germ of money is an ideal unit, like the *macoute*, used mentally to compare the values of two commodities brought together for exchange. Each commodity was valued in units limited by the commodity itself, and the units of each commodity were then compared with those of the other.

The next stage of development in natural order was to embody the unit or *macoute* in a commodity of universal exchange, which thus not only furnished a unit of valuation, but also a commodity of universal acceptance, and so of universal exchange. A valuation by units is therefore the root and origin of all money, behind which lies the commodity which embodies and thus limits them. It is a mathematical impossibility for money to be used in any other way. But

because gold, silver, copper, and other metals which are material substances and highly useful commodities, have been in use from the earliest periods in the shape of units of weight which have not only the valuing power of the unit or *macoute*, but the purchasing and paying power of a valuable commodity as an article of universal exchange, these units of weight are in one sense commodities as much as bushels of wheat; but so far as they have, or by any possibility can have, any effect upon the prices of those commodities for which they are given universally in exchange, they must be actually used or put in circulation in exchange for those commodities. Hence the price of silver bullion in London cannot affect the exchangeable value or purchasing power of the silver unit in Germany or France, because these governments have stopped the free coinage of such units. Hence, also, the apparent anomaly of a variation of ten to fifteen per cent. between the value of silver bullion in London, reckoned in gold units, and the purchasing power or value of the same silver bullion in the shape of units of weight reckoned in units of gold in Paris and Berlin. Imperial power cannot fix the value of any commodity like wheat, reckoned in other commodities or in money, but it can fix the purchasing power of a commodity like silver in the shape of units of weight, as compared with those of gold, *for the purposes of money*, up to a certain point explained hereafter. Were silver the only material used as money throughout the commercial world, imperial power could not accomplish this task of fixing the purchasing power of silver without adopting some other material for money in addition to silver, by means of which to fix it: it could no more accomplish such a task than it can alter the rules of mathematical proportion, as will be further shown hereafter. Gold, silver, or any other commodity, therefore, when used as a universal medium of exchange, ceases to be governed by the ordinary laws of supply and demand in its character of money, because its value is wholly conventional so far as it is used as money, and lies in those things it procures, and not in itself.

Upon this analysis, it is possible to comprehend the truth

of the general assertion and the general belief, that gold and silver form the safest and best currency possible. The true reason for this belief is, that all money is but a process or contrivance for the exchange of commodities principally, and capital incidentally; and silver and gold, looking at the masses of these metals in the shape of units of weight, and the annual ratios of their production to the existing accumulation, furnish not only units of valuation, limited by these metals as commodities, but also what may be called a conventional substitute in the place of one of the two commodities brought together for exchange, as in the case of the macoutes. Barter has in this manner been long since superseded by the universal use of a substitute for one of the two real commodities whose exchange constitutes what is called barter. Hence it follows naturally, that notes promising to deliver on demand units of metal, if universally acceptable and entitled to confidence, may be, as they have been and are, used in the place of the metallic unit itself; and still further, that notes of the same kind not convertible, but possessed of equal credit, may be used in like manner. The latter, when used, are not redeemed or redeemable in, and therefore not limited by, units which are themselves limited by a commodity of universal exchange, like gold or silver, nor by real commodities actually exchanged, as in the case of the macoutes, and therefore constitute an unstable and fluctuating currency. I have by this general analysis shown why and wherein a commodity like gold or silver is absolutely essential to limit the units of valuation, purchase, and payment, which, when localized, we call money. It follows that paper and "credit" money of all kinds, in order to furnish stable prices, must be limited by units of metal used in a definite ratio to the former, and circulating freely with them. This general proposition, which is the result of the foregoing analysis, will be fully developed, and rigorously demonstrated in a practical manner, at the various angles of observation from which the process of exchanges through money can be viewed, in the following chapters. It follows further from the analysis, that it is absolutely impossible for any "scarcity"

of gold or silver as material to make the money unit to occur, because the value of the unit in exchange must gradually increase with the gradual annual increase of commerce over annual metallic production, and gradually diminish with the gradual annual increase of metallic production over the annual increase of commerce.

It is impossible to understand or to have any adequate conception of the forces at work to stimulate production in this last quarter of the nineteenth century without having a true conception, or theory, if one chooses so to call it, not merely of money, but of the manner in which it is used. It has required long reflection and rigorous abandonment of all existing theories of money, with a strong desire to ascertain the truth, to enable me to arrive, step by step, at the theory of money given in this chapter. The grand proposition which I have demonstrated, and which I again announce, is that money is entirely a relative affair or process, having, therefore, no independent existence of itself, and no actual existence except in use; that money is not a commodity, but a series of units placing themselves in the denominators of the several ratios of price, the units of commodities and capital sold placing themselves in the numerators, — the measuring units being limited by a commodity like gold, silver, or copper, in which they may be embodied or (through bank or government notes or bank debt of any kind) limited, either perfectly or imperfectly, by those metallic units; and thus adding, in the former case, a definite, and in the latter case an indefinite, sum to the total of the metallic units as these are distributed naturally through the exchanges of commodities. In the former case a true, exact, and perfect "metallic basis," in the latter a false, inexact, and imperfect one is attained.

It is absolutely impossible for all governments combined to change or to affect in the slightest degree, *as a whole*, the purchasing power or exchangeable value of all the units embodied in gold, if we assume that to be the only money in use; and so of silver or any other metal, singly and solely used as money, and distributed in coin throughout the com-

mercial world. If the United States, in such a case (where gold, for instance, is the only money), coins dollars, and Great Britain, adding a little more gold to her sovereign or pound sterling, whichever we choose to call her unit, puts in it five times as much gold as there is in the dollar, the conventional value of the coins is directly as their respective weights, and inversely as the respective numbers of like coins which could be made out of the whole coined mass of gold throughout the commercial world, first in the shape of dollars, and secondly in the shape of sovereigns or pounds. Again, if dollars alone were in use throughout the commercial world, no real change of purchasing power would take place, by general recoinage in the shape of half eagles, the total purchasing power would remain the same, the purchasing power of each unit being increased five times, while its mass increases in like proportion.

All this happens under free coinage for all who bring gold bullion to the mints. But suppose the United States choose to coin, on their own account, what are called gold tokens, while all the coins throughout the commercial world (gold being the only money in use) are of the weight of the English sovereign increased so as to make it equal to our present half eagle. Let the token be in weight one fifth that of the present half eagle, with a device peculiar to itself, and let it be made by law legal tender for the same amount with the half eagle, under an issue of tokens to the amount of fifty millions, nominally. Suppose this to be the only instance of token coinage throughout the commercial world; what will be the consequence? Will the tokens pass for half eagles, each, although they contain but one fifth of the weight of a half eagle? Doubtless they will; but what then? Free coinage existing elsewhere, and in the United States also, with the single exception of the fifty millions in tokens, what will be the effect of this coinage on the purchasing power or exchangeable value of the half eagle, which contains full weight? Will its value be diminished; and if diminished, in what proportion? It will be diminished in exact proportion to the increase in the number of standard

units, in consequence of the coinage of tokens of one fifth weight, by the United States, to the amount of fifty millions. If the total of gold half eagles were one thousand millions before the coinage of tokens the total number of units would thus be increased, and therefore the average purchasing power of the unit would be, in the course of time, increased four per cent. But the tokens are not directly redeemed by the United States in half eagles on demand; and how then will they, how can they, circulate side by side with the half eagles of full weight? They will circulate, because they will by law, and therefore general consent, buy as many half eagles of full weight, which constitutes a real and continual redemption; for it is a mistake to suppose that they are not redeemed. They will be further redeemed by the government, which receives and pays them out as if they were of full weight, and they are constantly redeemed by every seller who takes them of the buyer at the same rate they cost him. This is what is called economy of metal; precisely of the same kind with that which would be, and perhaps will be, effected by the United States should they constantly maintain an issue of forty millions of treasury notes after redemptions are inaugurated by the government and the banks; and precisely like that which is effected by any paper or credit currency maintained in one unvarying ratio with metal. But it is all an illusion to suppose this to have been in the past, or by any possibility to be in the future, real and true economy, except as hereinafter explained. Because the metal is in use as money throughout the commercial world, it is simply and purely an artificial arrangement to diminish the exchangeable value of the metallic unit, and consequently the paper unit which circulates side by side with it.

It follows logically, as in point of fact it has followed, that where one country, like France, maintains for the most part a metallic circulation, other countries, like England and much more the United States, have supplemented their loss of bullion by what is called (erroneously) bank debt by book, and by what is correctly called bank paper or bank-

notes. The bank debt is not the supplement, but the circulation of gold in the reserve through the use of bank debt. To disturb the ratios of the annual distribution of bullion, by largely increasing the bullion in the shape of bank reserve and circulation in England or the United States, would be injurious in its effects; and not to disturb this distribution at present is good economy. What is wanted in both countries is to place and keep the bullion they have, with some addition, in the United States, together with the annual increase, in definite and steady ratios to all other units of money, in the shape of bank debt.

It is absolutely certain that the total purchasing power of any one metal used alone as money, in the shape of units of weight, or in the shape of such units supplemented in definite ratios by units of bank debt, or, for like reasons, by units of personal or individual debt, should they by any possibility be used as money, can neither be increased nor diminished, because increase only adds to the number of units in the denominator of each ratio of price, decreasing at the same time in exact proportion the purchasing power of each; while diminution only takes away from the denominator of each ratio of price, at every purchase and sale, a certain number of intangible units, increasing at the same time in exact proportion the purchasing power of those units which remain in the denominator. But I have supposed gold, or gold supplemented by bank debt, to be the only money in use. Introduce silver, and what will be the result? Will there or can there be any difference? There can by no possibility be any difference resulting, as to the main proposition, which is, that total purchasing power can neither be increased nor diminished, because the units of each metal in the several denominators of the several ratios of price, made at each purchase and sale, can only count units; and the price will be in reality the same whatever the unit of weight of each metal may be. But the number of units of gold, when that was the only metal used, depended on the number into which the total mass in the shape of money was divided; the greater the number, the less the

purchasing power of each, and the smaller the number, the greater the purchasing power of each. Weight, therefore, necessarily determined the purchasing power of each unit. It follows that if silver comes into general use as money without its ratio to gold as money being fixed, the purchasing power of any one of its units must be to a unit of gold inversely as the respective weights of each unit, and therefore inversely as the respective masses by weight of each metal coined. It further follows that the whole commercial world can agree, and can also mutually carry into effect the agreement, to refuse to coin silver, according to what may be called this natural (because necessary, so long as undisturbed) relation of the two metals, in point of purchasing power, by changing the ratio from say $15\frac{1}{2}$ to 1, to 20 to 1.¹ They can refuse to coin silver except when twenty pounds of silver sells in the bullion market for one pound of gold, and to stop coining silver as soon as it begins to rise above that ratio. The total purchasing power of all the gold and silver will then equal exactly the total purchasing power of all the gold, when gold was the only metal in use as money. But, again, if the ratio, in the absence of legislation, fixes itself, as it assuredly will, $15\frac{1}{2}$ to 1 being found, for instance, to be the natural ratio, the total purchasing power of the two metals will still be that of gold before silver was monetized, and consequently the total purchasing power of the two metals, which is also the total purchasing power of the one metal gold, before the monetization of silver, will now be equally divided between the two metals, gold and silver. Silver will take from gold one half its purchasing power very gradually, and so gradually as to create no important disturbance in the commercial world of production and distribution. Gold and silver being thus allowed to take their natural course, in respect to the distribution of purchasing power between them, which distribution, left to itself, can by no possibility take place in any other manner, or in any other proportion than that stated

¹ This would really be bad economy, because it would check the production of silver, and deprive it of a portion of its one half of total purchasing power

(exact equality), the weight of the total mass of silver and gold in coin will be greater by $4\frac{1}{2}$ pounds of silver for every $15\frac{1}{2}$ pounds of silver and every pound of gold coined than where all governments agree by treaty, sustained by adequate legislation, to coin only when and so long as the ratio continues at the rate of 20 to 1, instead of $15\frac{1}{2}$ to 1. To coin at the former ratio would be a real saving (whether an economical one is not the inquiry now) of a fraction more than twenty-one per cent. in the total mass by weight of gold and silver used as money. All this results because metallic money is a series of units of valuation, purchase, and payment, localized in and limited by the metallic commodity of which they are made. This limitation is essential, not because total purchasing power could be made greater by an indefinite increase of the units, or made less by an indefinite diminution of them, but because it is essential, in order to keep the purchasing power steady, in the hands of successive holders.

Money is not a commodity, but a process of valuation by units, followed up by the delivery of the units, localized in metal or debt, as a substitute or conventional commodity. Upon this analysis it is easy to understand why metal has been so generally believed to be a steadier and safer currency than bank-notes or any other form of debt, however safe and well secured, for conventional use as money. The belief may truly be said to be universal, although in some instances opposed, but not overcome, by the extensive use of inconvertible bank and government notes. Such notes are merely units of valuation, purchase, and payment, and their whole value lies in the fact that they will exchange for units of merchandise. Such, to speak with rigorous accuracy, is and necessarily must be the character of all money, because it can only be used as money to procure other things. Hence the intrinsic qualities of the metal, in the shape of money, must be eliminated in an analysis of money and its uses. The true reason why metallic money, duly distributed with commodities through commerce, is the steadiest of all currencies is that there are definite limitations to its manufact-

ure as a unit of value in the metallic material, of which it is composed, while the prevailing idea, which can never be subverted, perhaps, except as matter of science, is that as money its intrinsic qualities give it a value as a commodity which remains in it and cannot be separated from it, even when it is used only as money. The prevailing idea is right in respect to the fact of steadiness of metallic money in exchangeable value, but wrong as to the true reason for it. The true reason I have given; the popular reason is, that the unit of money is itself in the shape of a metallic coin, — a valuable commodity at the moment it is used, — and that it performs its valuing function as a commodity. But even this erroneous idea itself, as will be hereafter shown, serves to add to the stability of prices by keeping large masses in reserve, to be put to actual use in circulation only to exchange commodities.

CHAPTER II.

THE PRIMARY CAUSE OF BANKING AND COMMERCIAL CRISES EXPLAINED UPON AN ENTIRELY NEW THEORY.

BY Cause I mean the ultimate and efficient cause, without which such crises could never occur ; and as there could be no commerce, and therefore no civilization ; no capitalists, and no banks, and therefore neither individual nor bank loans ; no production, and therefore no distribution or consumption, in the complex sense in which at this day and in these United States we understand these terms, except through men as the actors or agents, without whom the processes which these terms imply, and therefore the terms themselves, would never have existed ; and because men themselves are impelled, while they are at the same time limited, by outward conditions, the cause of commercial and banking crises must lie either in the men or the outward conditions, or both. What is the cause, and is it curable or incurable ? The introductory part of all this business is production, terminating through distribution in consumption, and this, and therefore the disturbance of it, is coextensive with the country itself.

Men have always been compelled at every stage of civilization to provide the absolute necessities of life as the inexorable condition precedent to providing things not absolutely necessary ; and as they progress upward, and artificial wants increase, together with the means of supplying them, the least artificial, because found in the largest number, will require the largest, and the most artificial, because found in the smallest number, will require the least amount of supply to satisfy their respective wants. All want the common comforts of life, and nearly all are able to procure them ; all

want, and many are able to procure the means of gratifying some of the more artificial ; and all want, but few are able to obtain the means of satisfying those most artificial. The smaller the circle of consumers, or the more refined and civilized the want, the greater the danger of loss of ability to consume ; a danger existing in the highest degree in the United States. The terms in which ideas arising from money and its movements are expressed, and the very complex nature of money itself in England and the United States, have obscured all the actual movements that are behind them. The comparative safety of keeping gold and silver instead of bank paper ; the computation of riches in money ; the terms, scarcity of money, and plenty of money, circulation, expansion, and contraction, have disguised the real exchanges ; the auxiliary exchange has concealed the real exchange itself.

Moreover, to investigate and comprehend the movement or circulation of gold, bank-notes, or bank credits, it is not sufficient to investigate merely the facts which lie behind "traffic," "trade," "over-trading," "speculation," etc., because if we stop there we shall really make no investigation at all, and we shall leave the subject with ignorance more profound than we entered upon it. We must ascend the river which supplies us to its source ; we must go from "traffic," which we must henceforward call Distribution, to its source, Production, and thence down to Consumption, — the former, ultimate cause, and the latter, ultimate effect, — otherwise we shall have no science ; because science consists in tracing and discovering cause and effect as far as we can ; and I affirm that the term distribution — when we desire to use a general term — is more proper than exchange, because goods are not directly exchanged, but indirectly, through money ; in other words, they are distributed through the agency of money. Moreover, the word is less liable to mislead us, and of itself implies a source from which distribution is rendered possible. Discarding money for the present, and supposing, instead of banks and capitalists making it their business to loan money, banks and cap-

italists making it their business to sell their written promises to manufacturers and merchants, by which they promise to pay on demand, to them or to bearer, certain quantities of staple commodities, or, should they prefer it, an equivalent in other commodities, writing these promises in as small amounts as desired, for convenience in paying wages, — can any overstock or redundant production arise from these loans? The answer to this question is in what follows: Of the absolute necessities, of grain and provisions, there can be no redundancy, for that proposition is demonstrated by the facts of all past time. There may be in some localities a glut, arising from inability to get to a market; there may be at times too large quantities thrown upon the market at once, where the whole produce is bought within a short time, instead of keeping a part of it where, for the good of all, it properly belongs, in the hands of the producers until wanted; there may be high, to be followed perhaps by low, prices; but there can be on the average, in this part of the field, no overproduction; because if there is not a market at home for a surplus, there is abroad. But while there can be no overproduction of absolute necessities, can there be any overproduction of articles which are not absolute necessities, on a national scale. There certainly can; especially in those articles having the smallest class of consumers, unless four cofactors, which will follow the overproduction, shall immediately arrest its progress. These four cofactors are: 1st, the law which makes all commodities less and less valuable as they increase in quantity, unless the increase is consumed as fast as it is produced, the demand keeping up with the supply; 2d, the progressive loss of capital, from inability to reinvest, because it is locked up in the overstock; 3d, the increased rate of interest arising from increasing scarcity of loans, and the increased risk to capitalists and bankers; 4th, more than all, the increased price of the necessities of life bought on credit. These four cofactors will make overproduction to an extent sufficient to bring on an industrial crisis impossible, because they will make the conditions preceding it impossible.

But granting that it is possible to carry the overproduction so far as to produce such a crisis, the possibility, and so the overproduction itself, can arise only by neutralizing or masking the operation of these cofactors by giving some new and additional qualities to their immediate cause, which is credit, or by exchanging it for something else. Hence, to disguise the legitimate operation of these cofactors, personal credit must be masked by exchanging it for or converting it into something else, because it is impossible to give any new qualities to credit. I am still supposing a state of civilization and production like that of the present day to exist, and that all exchanges are made, both directly between producers and consumers, and mediately through merchants and traders, by the aid of bankers' and capitalists' written promises in the form supposed, because in this way I remove the veil placed upon the whole movement of production, distribution, and consumption, by money and its terms. It is manifest now that the main *business* of this civilized society consists in producing and distributing the results of labor and capital in a tangible shape. All paper documents in the shape of deeds, bonds, mortgages, stock certificates, debentures of all kinds, bills, and notes, are but the evidence of title in the real owners and holders of the capital, but do not constitute the capital itself. Inasmuch as they serve to divide the capital up into as small portions as may be necessary, they in effect render the whole and every part of the capital more readily salable and transferable; and thus, while not capital, they add greatly to its efficiency.

I will now, for the purpose of clearing the way to the solution of the main question, — What is the cause of industrial and banking crises? — suppose bankers' tokens, equal in value by common consent and by actual redemption on the part of bankers to the former promises, to be issued, and their written promises to furnish commodities retired. So long as they are mere tokens, and are regularly redeemed in commodities as fast as they have been used in payment for labor and materials, it is in effect the old promise to pay in commodities, and there can be therefore no great expan-

sion of production beyond consumption, because there is nothing to neutralize the operation of the four cofactors ; but let the idea of measuring values in the terms of the tokens taken as so many units of universal value in exchange supersede the old mode as it naturally would, and we have money ; and we can thus easily have an overstock of money in these tokens. The tokens are paid out, and are received back ; they are loaned only to pay for labor and materials. As they are paid out and their volume expands, production expands with them ; and as they are paid back their volume is contracted, and production contracts in like manner. After a time production expands together, and in exact proportion, with the volume of tokens in excess of consumption and contraction, and for every token's worth of the excess there is one token outstanding and not retired, or, as it might be said with equal truth, calling the token a dollar, for every dollar's worth of the excess of unconsumed goods a dollar has been put in circulation ; and this is certainly an enormous expansion of tokens or dollars, whichever we choose to call them. Now it is quite certain that the banker is lowering the exchangeable value of his tokens, otherwise called dollars, for himself, and the capitalist, as well as the producer, the distributor, and the consumer. The producer gains at every issue of tokens, whether to himself or another producer, in the rising price of his commodities, and in that only. So far as he and his laborers consume other produce, however, they are losers as well as the banker and capitalist ; but while the commodity he produces rises for a time, with everything else, there is an appearance of profit in every sale he makes, which masks, by apparently suspending, the operation of the four cofactors ; the loss by depreciation is locked up for the present, and disguised in the overstock, and sooner or later comes the industrial and banking crisis. There is but one crisis, and it has an industrial as well as a banking side.

COMMERCIAL AND POPULAR TERMS THAT HELP TO DIS-
GUISE THE TRUTH.

There are commercial terms which hide the truth and prevent our seeing realities. "Overtrading" is a favorite one, and conceals the truth by assuring us that the mischief has come from trading too much, when, in point of fact it comes from inability to trade, and thus to get rid of an overstock by means of trade; for the object of trade is to bring producer and consumer together, and there is an inability by means of trade to make people consume beyond their capacity. "Overtrading" is in its true sense a term of local application only. Certain merchants or adventurers attempt to control prices and sell at a profit, by buying up all the produce (especially if an article of foreign production) and disposing of it before the market can obtain adequate supplies from abroad—a speculation occasionally successful; but, if unsuccessful, it does not produce an industrial crisis. Again, where an industrial and banking crisis occurs, and stocks of merchants as well as producers are thrown upon the market at ruinously low prices, the merchants involved could never have been guilty of overtrading had there not existed an antecedent cause in overproduction; they have been selling all the time at a profit, because the actual loss in value was masked in price. The real depreciation was disguised in the apparent profits yet lying in the stock but not actually realized; actual depreciation existing in their stock took the guise of a profit in price to be realized on future sales.

Again, there is a falsehood locked up in the popular word "speculation," when applied to the facts of an industrial and banking crisis. There have been, it is true, speculations in constructing railroads, an excess of speculation in stocks, and speculations in real estate, but the cause, the origin of the speculation, has been an expansion of circulation, causing an expansion of production, where the expansion comes through bank loans; for I am not now referring to government issues. The industrial and banking crisis is on a national scale, and

the chief business of civilized man in respect to wealth is to produce, distribute, and consume. Progressive expansion of prices of the fruits of capital must arise before expansion of prices of capital. Advancing prices of merchandise cause active trade, active trade activity of passenger and freight traffic, advancing prices in railroad stocks, advancing rents, and so advancing improvements, and therefore prices of real estate; and the latter speculation may be and is carried to an excess unwarranted even by any advance of prices. Profitable or seemingly profitable trade, following apparently profitable and excessive production, draws population to towns and cities, and attracts men from agricultural pursuits. There may be, it is true, an occasional mania of speculation that will break out in some quarter or other, by means of credit or without it, in real estate or in something else, and the tulip mania in Holland is an instance; yet this is entirely different from an industrial and banking crisis.

But, in the case I have supposed, the excessive use of tokens at last brings on a crisis. What is the result? Extensive bankruptcies of banks, and still more of merchants, manufacturers, railroad contractors and builders, sacrifice of stock, and that phase of the crisis which is peculiarly industrial, the discharge of large numbers of laborers. There is apparently actual abundance of provisions, as well as goods, and there is an exuberance of production in certain quarters, as there was in the United States in 1873. There is certainly nothing actually wrong, says the ordinary observer, and the "panic" ought not to have *happened*, and ruined business in this way. The common observer has, from his point of view, a great deal of common sense on his side; and wherein lies his mistake, inasmuch as he perceives that there is abundance and more than abundance? He insists, therefore, that if the "panic" could have been prevented nothing could have occurred to mar the happy state of trade and banking. Another observer insists that if the banks had consented to loan more money, instead of actually contracting it by calling in loans, or if the Treasury had only possessed and exercised the power of issuing notes, there would.

have been no panic and so no crisis. There is an abundance, say both these observers, of money as well as goods, and if the banks had loaned freely, instead of contracting sharply, goods could have been held and prices sustained. This reasoning is apparently correct, but there is a fallacy in the premises. The panic is not the cause, but only an incident in the series of results; and because not a *necessary* incident to the main result it might never occur. England is now in one stage of an industrial and banking crisis which has not been attended by panic, but she suffered from a panic in the crisis of 1866, as did the United States from the panic which attended the crisis of 1873. Assuming, however, that a crisis can be avoided, provided a panic can be avoided, these reasoners are right, because a panic, if threatened, may in all probability be postponed — and possibly avoided altogether — by free loans in bank, or free government issues, under the present banking systems of England and the United States, either with convertible bank-notes or inconvertible bank-notes, for reasons appearing in the chapters on Banking in the United States, and Banking in England. Had the banks of the United States, and especially the banks of New York, refrained from forcing their customers to pay up at such short notice, the panic of 1857, as respects New York city, would have been, perhaps, postponed, and possibly a panic there might not have occurred at all, inasmuch as producers and merchants would thus have been enabled to hold the stock on hand for a time longer. The four cofactors had been, however, for some time in vigorous operation, as shown in the high rates of interest, high prices of necessities, difficulty of making new loans, derangement of the “exchanges” between New York and the West through depreciated bank-notes, and “balance of trade” largely against the interior. Possibly a bank panic might thus have been avoided in New York city, but the four cofactors had already brought on the industrial and banking crisis upon a national scale, for that was unavoidable.

Now the lesson to be learned here is, that the overproduction of commodities not absolutely necessary to existence, but

nevertheless absolutely necessary to civilization and human progress, is not possible by the use of even a banker's guaranty in the shape of a promise to pay in the necessities of life, or in the shape of a token taken in lieu, or as a representative, or as evidence of the promise, so long as it is specifically performed all the time as a contract; and we shall see by and by that the result would be the same if the banker had adopted for his token a metal like gold, or even copper, if the tokens were made proportionally heavy, and deposited, say with government, and subsidiary tokens issued for the deposit. Suppose the material to be gold, which already has a considerable value in the line of manufactures and arts. As the tokens come into use, and gradually into universal circulation, their value increases by the new use to which gold has been put, and the latter acts with the old use as a coefficient in creating a demand for the metal, which rises in value, and the tokens are made smaller as the value increases, and until it becomes stationary. To furnish the gold token costs as much as to fulfill the old promises, because there can be no overproduction of the tokens, and hence the banker cannot continue to purchase the gold unless his customers pay him; and therefore they can only get necessities by selling as fast as they produce, because in case of excess their goods not only depreciate, but they cannot buy necessities, inasmuch as their capital is locked up.

Now it is important, if we are to arrive at any true science upon this subject, to give true and not false reasons, even for correct opinions. The prevailing idea among the bullion theorists is, that gold makes the best money because it has intrinsic value recognized everywhere, and it is good everywhere. The fact that it is good all over the world is only one of the causes which produce that final result which makes it the best material for money.

The universal demand for it, to coin and to manufacture, has caused such a large accumulation of it that the ratio of the annual product to the total mass is small, and necessarily, therefore, growing smaller unless the annual product increases as rapidly as the increasing mass. Whether the

general use of silver by all governments as coin, without any limitation of amount, might possibly be desirable (provided always that all governments would take the responsibility of keeping silver coin and bullion on account of its great relative weight and bulk, and issuing tokens for the deposit), is a matter to be discussed in a monetary convention of all nations. Whether it would be desirable depends entirely upon the question, whether the annual product of the two metals, with the greatly increased value given to silver by its general use as coin, would be more likely than that of gold alone to increase in harmony with the annual increase of production and distribution—in other words, commerce. Nevertheless, for all practical purposes, we may safely say that the supposed accumulation of gold for the last twenty-five years in excess of commerce is imaginary; gold has cheapened more by the relative increase of banks, and possibly greater activity of production in that period, than it has by the accumulation. We may say, then, that there can be no overproduction of gold, any more than there can be of necessities; and as shown with regard to the latter in a former chapter, so we may say of gold, that its production cannot be carried above the base line of agricultural production of necessities; and therefore if gold, or tokens convertible into gold as fast as production takes place, be used to measure values created to satisfy any wants beyond necessities, the production of the latter cannot be carried beyond or in excess of such agricultural production.

Gold coin or tokens, or paper (for instance paper dollar) convertible,—and not only convertible, but actually converted into gold,—as soon as it has performed its only legitimate office of stimulating production by paying for labor and material, and, in the next place, by one payment more furnishing the laborer and producer with necessities, savings, and raw material increased by profits, will always keep production and consumption near together; and if the production of articles not necessities could never be in excess of the production of necessities, a token circulation, and by parity of reason bank-notes if issued by banks only, and not

by governments, never could be in excess so long as loans were confined to producers and merchants.

I pass now to the consideration of the subordinate, or what may be called the post-auxiliary, causes which accelerate and magnify industrial and commercial crises.

The primary cause is the non-redemption in gold of bank liabilities arising either from book or note as soon as they have performed their only legitimate office. The consumer pays, otherwise he could not consume; the money expansion, therefore, represents the overstock that cannot be sold to consumers. The difference between expansion of circulation in harmony with expansion of production, and inflation of circulation by government issues, like legal tender notes; currency issued by States and called in the constitution of the United States bills of credit; the old Continental scrip; French assignats; the notes of the Agricultural Banks issued in large amounts in Michigan, 1838-9, to provide the people of that State a *safe currency*; and finally the issues of the Free Banks of Indiana and Illinois (which did not belie the name of the banks, for the issues were free indeed), I have clearly pointed out in another chapter. I refer now particularly to loans made for what bankers would call legitimate business, for the purposes of production, distribution, and consumption. No doubt a bank might make a loan of its credit, in the shape of convertible notes, or on its books, to be used by the borrower in the purchase of capital, for instance a farm, a quantity of railroad or other corporation stocks or debentures; and if the money were used, as it usually is for these purposes *only*, and the loans paid back, even where a "stock speculation" has intervened, no expansion of circulation in the sense in which I use the term, in this and other chapters, has occurred, because the expansion arising even from a stock speculation is short-lived, and is speedily retired; but where the loans have been used to pay out either bank-notes or bank credits by means of checks, for labor and materials resulting in a new product, and hence new value in addition to all the values in the country existing before, this expansion of circulation,

which has caused an equivalent expansion of values, can never be retired except by an equivalent contraction which results from sales for cash and which puts the borrowers in the way of paying their loans.

This is usually the index and the guaranty that an equivalent consumption, and thus contraction of values, is about to take place.

WHAT ARE THE POST-AUXILIARY CAUSES WHICH ACCELERATE AND MAGNIFY INDUSTRIAL AND COMMERCIAL CRISES ?

I have demonstrated that the ultimate cause of industrial and banking crises is the masking of the four cofactors, — inability to make sales, resulting in loss of profits of capital ; depreciation of goods from overstock ; rise of rates of interest in favor of bankers by reason of an increase of their own liabilities and risk through non-payment of loans, resulting in scarcity of money to loan ; and the relative increase in the prices of necessities in which there is no overstock ; and the first of these cofactors has a negative, the remainder a positive operation. If any one of the necessities, like wheat, has its relative value reduced through the influence of a foreign market, the difference is made up in other necessities. Overstock of all sorts of domestic goods being the result, when the crisis comes, as come it surely must, laborers are thrown out of employment ; and as they must have the absolute necessities of life before all other necessities, they must largely devote themselves to other occupations which will furnish these, either by becoming farm laborers, purchasers of land, or at least laborers in the production of articles more necessary and therefore having a more extensive market than those in the manufacture of which they have been previously engaged. They intensify the glut by their enforced economy in the use of the latter kind of articles. The overstock, moreover, has been increased, notwithstanding the signs of the times preceding a crisis, because it has been absolutely a moral impossibility on the part of any one manufacturer or merchant to stop or

retire; and so the chances are in favor of large capital and exceptional sagacity and force; and the two latter qualities appear largely in adapting the qualities of goods to the taste of consumers, and in bringing goods to their notice. It is therefore a question of chances, when viewed as a whole, who will or will not become bankrupt. This inability to stop the wheels of excessive production is a post-auxiliary cause, coming into operation through the primary cause, and is on the negative side. Another cause is the progressive improvement in machinery, economizing hand labor. This cause is not post-auxiliary in the sense that the primary cause necessarily precedes it, for it does not; but it is post-auxiliary in the sense that without the existence of the primary cause it never could, with the aid of all other causes, bring on a crisis. We must not lose sight of the fact that the question is not, How many hands more or less will it take to produce the articles not absolutely necessary? but, How many hands can be set at work in this production, and be enabled to cause such exchanges to take place as will give them and their employers a living? It must not be forgotten that the business of society, aside from the time given to mental occupation, consists not only in producing but exchanging, and the net annual gains after the produce has been exchanged directly, or distributed by the agency of money, are small, after making good the waste and deterioration of capital. If there be an excess, therefore, of one commodity, relatively to another, "the exchanges" are adverse to somebody, and the "balance of trade" is in favor of somebody. The "balance of trade," for instance, was in favor of New York and against the West in 1857, not only on account of depreciated bank-notes like those of the free banks, but because labor had been expended on railroads by the aid of bank-notes, and the result of the laborer's work in the shape of shares and debentures of, or claims against, the railroads, would not bring cash: "the exchanges" between the West and East were partially blocked. But there is another cause which increases and is itself increased by the primary cause, which masks actual and inher-

ent depreciation in the guise of a phantom of advancing prices. It is the intelligence, the enterprise, and the intense desire to improve their condition in life, and at the same time the pride of reaching and maintaining a certain condition, on the part of our people, and hence the greater necessity of the metallic check to keep their youthful energy from over-leaping itself.

Another post-auxiliary cause of great efficacy is the national habit or tendency to move in this cycle of maximum and minimum production, which grows by what it feeds on ; that is to say, bank loans. The difference between our national habits and those of the people of France are manifest. France has a stable currency and a corresponding stability of commercial and productive character, but, on the other hand, from deep-seated moral and political causes, has been a prey to political action and reaction, that is to say, revolution. The United States, with deep-seated political conservatism and stability, in spite of the ravages of party upon their liberties, are subject to action and reaction from extremes, that is to say, to revolution, in their financial and industrial affairs. The cause has been stated, and if that cause were removed, in all probability there would be a strong tendency to maintain overproduction by means of personal credit ; but to carry it to an extent sufficient to produce an industrial crisis would be scarcely possible.

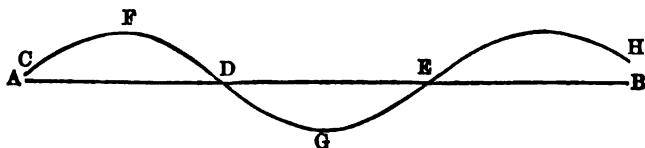
But it has been asserted that tariffs and taxes have done much towards the overstock. I grant that they have done something towards the overstock, and I think they have done it by impairing the ability to exchange productions, between the manufacturers and the agriculturists, and therefore between the manufacturers themselves. The office-holders, the army and navy, and the government debt holders, at home and abroad, so far as they draw upon the government, draw most upon those who are at the base line of necessities, and the draft is honored by means of tariffs and taxes : the larger the draft, the less remains to maintain the equilibrium of the exchanges between the immovable base line and the moving line of non-necessaries ; or, to put it in plainer terms,

inasmuch as all taxes fall most heavily upon land, the more land is taxed, — waiving for the present the question, whether and how far this taxation reacts upon all other production, — so much the less has land left to exchange for relative necessities; or, to put it in homely phrase, if a farmer, whom I bring forward as the representative of his class, pays in the purchases he makes one fifth of his crop product, in the shape of an increased price of what he consumes, his ability to buy of the merchant, that is to say of the manufacturer, is reduced by one fifth. This is a post-auxiliary cause only in the sense that it accelerates the advent of an industrial crisis, makes it more intense, and delays the reaction by delaying the restoration of the exchanges between the two classes of producers.

WHAT ARE THE CONSEQUENCES OF AN INDUSTRIAL AND BANKING CRISIS?

The absolute necessities of life are abundant where there is a large surplus after all the inhabitants of a country are fed. How then, asks a banker, a merchant, a cloth or iron manufacturer, railroad builder or laborer, could a crisis have occurred, if the banks that supply all the loans had agreed to stand, and had actually stood by us? I answer again, that although there may be apparently actual abundance, yet every man, in this universal system of exchanges, must himself have something, not only to offer, but something that will be taken in exchange, before he can eat; and the result of his inability to make such an exchange carries him, or some one else in his place and stead, either to the base line of agriculture, whence the supplies come, or to some point on the road towards it. In the mean time, production of articles not absolutely necessary continues to diminish with diminishing consumption, until by the necessary and inherent law of all action and reaction it falls as much below as it had been before above average. Agriculture is then no longer in the ascendant, and the manufacturers of England and the United States have at last touched the lowest point in the descending scale of quantity and price, which have

contracted in harmony, and having remained there for a time, begin to reascend; the expansion of production to meet increasing demand is fed by a corresponding expansion of circulation through the old and ordinary agency of bank loans, to run the same cycle again; and the crisis comes at last, as it came before. The movement of production in England and the United States, above and below the base line of absolute necessities, and of gold and bank-notes convertible and actually converted in time to check overproduction, may be represented by a curve passing above and below the line. Thus the upward movement above the base



line A B begins at C, proceeds upward to F, and then passes the base line at D, until in its downward progress it stops at G, and finally ascends through the base line at E and completes the cycle at H. The production of relative necessities, instead of moving in the same plane or on the same base line with necessities, is, by the aid of bank expansion, itself carried above that line, only to be carried afterwards as much below it. We may describe agriculture, therefore, as the base line, which is immovable, and the specie line (or convertible bank-note line as it existed with the Scotch banks in Adam Smith's time) as coinciding with it; while under the inconvertible bank-note line, or the imperfectly convertible bank-note line existing in the United States even with "specie payments," as explained in the chapter on American Banking, the movement upward of expanding production through the aid of bank loans, and the corresponding movement downwards in spite of all that bank loans can do, must renew their cycle through the delayed and therefore intensified action of the four cofactors, upwards and downwards indefinitely. But what has the agriculturist to say to all this disturbance of the "exchanges," or what have his friends to say for him? It has been said that

he is abused, but he seems to have greatly the advantage. His produce rose to as high, or higher figures than the manufactured goods he bought, except only in the period last mentioned, when the goods had reached the lowest figures, in quantity and price, and were rising; but he has been compensated for this, and more than compensated, by the very low prices which the goods brought while forced sales were going on. But says a theorist, who has a theory that gold is good for money only because it has "intrinsic value," right as he is in his opinion, but wrong in his reason: Did not the agriculturist who sold his wheat for one dollar and a quarter a bushel, when gold stood at 110, and manufactured goods were at least seventy-five per cent. in advance of old prices, suffer to the extent of sixty-five per cent. in making his exchanges? I answer, that his sales of home produce helped to make up a good share of the loss, and moreover his wheat was sent to Great Britain, where gold, while possessing, as here and everywhere, "intrinsic value," is nevertheless, as with us under even specie payments, converted partially into merchandise, inasmuch as millions of pounds can be carried there or taken away without affecting the ability to loan, and because Great Britain was in the same plight with ourselves; she had over produced the relative necessities, and the absolute necessities had risen relatively; and in this quarter the remainder of the agriculturist's loss was made up.

But after the crisis is developed, a great economy of expenditure, that is to say a diminution in the volume and number of exchanges, takes place. There is less and continually less merchandise produced and exchanged, but at present no essential change in the necessities, except that there are more people producing them for themselves. The "balance of trade" between Great Britain and the United States is favorable to the latter, and the balance arises from exchanging less of our grain, provisions, petroleum, and cotton for her manufactured goods, than we did before, and for a time she sends us some of her merchandise that is earning her nothing, in the shape of gold. Equilibrium in the ex-

changes will be restored at last by her buying less and less of us so long as we do the same by her ; but when the contracting volume of production in both countries shall have reached its lowest point, the expanding volume of production in both countries will introduce an expanding volume of exchanges. In the mean time the class who had supposed themselves to have grown rich on the advance in city, town, or country real estate, now almost confiscated by the burdens of taxation created by enormous current expenses and "improvements" at extravagant cost, — burdens doubled by the improvident issues of government paper not retired in time, — and some of the holders of stocks and debentures of companies that have fostered and directed overstocks, like that of coal, have lost the large profits supposed to be locked up in stock, or become bankrupt.

On the whole, the results of the enforced economy are that inasmuch as there can be no overstock of the necessities of life, the laborers, producers, and distributors, who have been compelled to be idle, will, many of them, succeed in earning their own absolute necessities by turning to agricultural pursuits ; others who have lived upon imaginary values, will leave the cities and towns and find some other business ; and all will economize in the use of articles of relative necessity, the economy being another name for the shrinkage in production of these necessities, and the diversion of capital and labor to other necessities. Net savings will be more and more applied to restore waste and make new improvements in the productive capital applied to absolute necessities, and so far as actual capital, and not the instruments of circulating it, in the shape of bills, notes, debentures, stocks, mortgages, etc., and the actual fruits of capital and labor are concerned, the crisis was a disease, not of excess on the whole, but of congestion, and a derangement of the exchanges going on between the different parts of the social system ; and the cure lies in the restoration of the exchanges ; but unfortunately, under the monetary systems of England and the United States, we have abundant stimulus but no regulation, and the cure comes only with an enhanced liability to incur

the danger of another attack of the original disease, in a severer form. The real loss lies chiefly, 1st, in banks : enormous losses arise for them, through the failure or bankruptcy of merchants and manufacturers ; 2d, enormous losses are incurred by other merchants and manufacturers who do not become bankrupt, but the loss of the latter in a national point of view is partly compensated by the low prices at which consumers are enabled to purchase ; 3d, the losses incurred by laborers, who cannot now dispose of their labor ; 4th, the losses of railroad companies, capitalists, and others, who have built railroads attended by equal loss, and perhaps bankruptcy to the iron manufacturers : but this is not a total loss to the country ; a large part of it is made up by the increased value of produce, and consequent rise of land in the neighborhood of the roads.

We may finish the summing up, by adding, that the principal loss stated in the fewest possible words, consists in the blind misdirection of energy, of enterprise, labor, and capital ; the actual loss cannot be estimated, and must be placed on the whole upon the negative side of the equation ; it is the difference between results as they are and as they might have been, if the same number of people with the same faculties and the same capital had been so restrained in the production of relative necessities that they would have been compelled to produce less relative necessities, and enough more absolute necessities, to maintain such an equilibrium between the two as would always make "favorable exchanges," and a fair, because exact, "balance of trade." These blessings can never be permanently enjoyed by England and the United States until the defects of their banking systems are at last brought home step by step, and line by line, to the knowledge of bankers, manufacturers, and merchants, and the mass of theorists, who write but do not demonstrate. It is hardly possible to keep off the veil thrown over the exchanges of products by their auxiliary, money, long enough to discover to the understanding the realities that are beneath. Under a steady system of production and exchanges, the apparent "volume of trade" would have been

smaller, as manufacturers, and therefore merchants, would have had no overstock, and therefore ready sales; the "lines of goods," and therefore the discount lines, would have been smaller, and there would have been apparently "dull and slow times;" but taking the whole period intervening between the limits of expansion and contraction, under the present banking system, and the same period under a strictly convertible system, with bank-notes convertible into gold coin, moving, circulating, and therefore varying, in harmony with production as well as consumption, instead of gold exported, imported, and moved, as mere merchandise, the average volume of business would have been the same. In a moral or social and political point of view, the losses from such a crisis as began before, but was made manifest by the panic of 1873, aggravated as they were by the enormous issues of government paper, and made certain by the stoppage of the contraction begun by Mr. McCulloch in 1869, cannot be estimated. The indebtedness of individuals can be wiped out by discharges in bankruptcy; that of states, cities, and towns cannot. There is no rule to estimate the losses accruing from turning men out of business, and laborers out of employment, and the demoralization and crime which ensue. Last, but not least, is the "adverse exchange," which turns production and distribution into a lottery: some prizes for the few, and blanks for the many, as we have seen in the most aggravated form in the United States of late. Doubtless many enterprises have been undertaken, and some have been successful, that would not otherwise have been undertaken; but this does not compensate the national loss, and Americans need no stimulus in this regard, but rather restraint.

The eyes of bankers and merchants have been brought in all probability to the perception of two important truths: 1st, that there can be overproduction; and 2d, that bank clearings are, *only in effect*, a settlement of credits. Now would be the time, if knowledge were sufficiently advanced, to found the true science of Money and Exchange. Until a science is developed by thinkers and writers, — and there can

be none until we have demonstration and not theory, — there will be no practical science on the subject for bankers and merchants. The difficulty is, that every man who writes, takes up some theory that is sustained by and explains some of the phenomena, but not all, and yet insists that it *can* explain all. Even the theory of the convertible bond and currency theorists has some facts to give it color. They say with truth that specie redemptions under our system amount to little, and that an actual contraction took place prior to 1873. They are wrong in their opinion as to what caused the contraction, but right in saying that there was contraction, because the limit of expansion had been reached. They are wrong in saying that contraction brought on the crisis, but had they merely asserted that a further issue of government paper would have postponed the panic phase of the crisis, to make it more intense at a future day, they would probably have been right.

The correct argument in support of their false theory, although they do not make it, would be this: by the large issues of government paper tokens, and the subsequent issues of bank-notes, both of which had arrived at their maximum, the total of possible bank loans under the rules, imperfect nevertheless as they were, regulating the reserve, had been about reached; therefore, to produce any more iron, railroads, rolling stock, cloth, etc., was impossible without more loans to enable the producers to reinvest in raw material and pay for labor. Therefore, the producers having been brought into this plight, a new issue of government paper furnished with a safety valve, in the shape of a 3.65 specie bond, into which any possible surplus of the notes might be converted, and for which notes might be at any time obtained at par, would be the remedy. But to say nothing of the more violent, because suspended operation of the four co-factors, which must soon follow such an issue, the fallacy in the premises lies in the omission of the fact that sales had been already stopped by the overstock, and that they would have raised the prices of necessaries against themselves by new issues, and there could be no contraction at all in the

volume of notes, until by the suspension of further work and consumption — or, in other words, sales for cash in excess of production — the equilibrium had been restored. Thus there could be no conversion into the 3.65 bonds, even if the government had kept them ready for the purpose; in other words, excessive production over and above any possible sales for cash had been effected already by the loan of notes, through banks; and hence it could only be reduced by a corresponding contraction of loans, just as Mr. McCulloch told Congress and the country that the only way to reduce expansion was to contract it. It was better to reduce it gradually, than suddenly by accumulating gold, admitting the latter process possible. These theorists, however, are as correct in their theory as those who would maintain the soundness of the present banking systems of Great Britain and the United States.

The sum of the matter, then, is that no theory should be adopted except with a view to explaining *all* the phenomena. When it will not do this, it should be abandoned. Rigorous demonstration should be demanded, and terms carefully defined. By expansion of production I mean any increase of value given to raw material by labor, combined with capital, in excess of consumption; and by expansion of circulation, the payment of money for the labor and raw material, and profits of capital, including interest, corresponding to that increased value. By consumption I mean a sale for cash, which usually implies consumption. By contraction of circulation I mean the return or repayment of the money thus paid out, back to him who paid it out, and if he is a borrower of the money, then the repayment by him to the lender; and in this manner the circle of exchanges is completed. Should the manufacturer use only his own money, he has produced new value as the result, and if he sells for cash immediately, he restores the money back to his own pocket, safe, or account in bank, and the expansion of circulation is met by a corresponding contraction. If he fails to sell, the money he paid out remains in the hands of others, giving them a power to buy any and all things they choose

to the extent of the money he has thus put into their hands ; which amount, not being balanced by an equal amount paid back to him by means of a cash sale, puts so much additional means, so much new purchasing power, in the hands of the holders of the money, which they could not have exercised had he not paid it out. This power of buying, thus transferred and exercised through the money, raises prices before the manufacturer can use the money again in production, by receiving it back through cash sales. If he has paid out one thousand dollars for labor and materials, and cannot sell the product, he has taken out of the market so much material and labor, thus virtually reducing the actual amount of exchangeable things consumed in the market, while he has at the same time increased the amount of money ready to be offered towards the purchase of the remainder. Consumption cannot be increased at will ; but he, directly against himself, has put an extra thousand dollars into the hands of laborers, who, if they were to use all the money he paid them in still further production, would increase the overstock ; but they do not so employ it ; they are cash buyers of the necessities of life like all others, when they possess the means, and of the relative necessities, so far as they have a surplus after buying the absolute necessities. But the quantities of absolute necessities they will consume is very nearly a fixed quantity, the other a variable one ; they have, therefore, carried up the price of necessities they require absolutely, and the relative necessities they actually buy, relatively, by becoming buyers with additional cash to the amount of one thousand dollars, over and above what they would have had the means of purchasing if the manufacturer had been unable to obtain a loan in bank, of say five thousand dollars, in order to lay out four thousand dollars in the purchase of raw material, and one thousand dollars in the purchase of their labor. The same result follows with the four thousand dollars paid out for raw material, and in this way the sellers of raw material and the laborers taken together can buy and pay for five thousand dollars of absolute necessities more than they could otherwise have done. Instead of being required to find a

cash buyer who will take their labor and raw material, or, what is the same thing, the manufactured articles into which they have been converted, and so enable them to get for the manufactured articles they have produced the other articles they are now consuming, and thus maintain the equilibrium of the exchanges in domestic and foreign trade, they have been allowed to eat, drink, and wear, to the amount of five thousand dollars, before any one has been found who would take their manufactured articles and give them what they are now eating, drinking, and wearing. The domestic exchanges are thus blocked; and looking, for the present, at the field from the industrial instead of the banking side, the materials of an industrial crisis, and derangement directly of the domestic and indirectly of the foreign exchanges, are being formed.

To make the point still clearer, I will show that such a result might follow from an exclusively gold and silver currency. A corollary meanwhile from the foregoing demonstration, sustaining what has been said before, is, that prices result from and are proportioned to the daily average of consumption, or, in other words, sales for cash, and the number of money units in the hands of consumers, in other words, buyers, and which they are ready and willing to expend in purchases for consumption, or, in other words, cash. Therefore we may add the further corollary, in support of what I have stated before, that, taking gold as the standard, under a currency convertible, as in Adam Smith's time, when production was nearly balanced by consumption, when the exchanges were at mutual par, and when, as he declares, not more than one trader in a thousand became bankrupt, the expansion of circulation to pay for labor and materials, and thus enable the laborers and holders of raw material to buy and consume to that extent, must be met by a corresponding contraction or payment back of the money to him who advanced it, as soon as the laborers and holders of raw material have laid out their money; otherwise there will be an expansion of circulation above the true convertible standard of gold, which may be called expansion above the gold

standard, or inflation; and if a government, for instance, were to issue irredeemable paper in large quantities, the security and safety of the issue meantime being unquestioned, prices would rise only as the money would be expended for purposes of consumption; but as soon as the paper had become discredited, or considered more or less doubtful, it would be depreciated as well as inflated; all would be anxious to get rid of it; and the depreciation might be carried so far as to cause a heavy discount, or possibly repudiation. The latter was the case with the American Continental and the French Revolutionary currency; and the former with the Michigan Agricultural Banks, the Free Bank currency already referred to, and the present United States legal tender notes, during the civil war. Therefore, inasmuch as I call the employment of money in production in advance of consumption, Expansion of Circulation, and the carrying of prices above what they would be if production were balanced by consumption, Inflation above the Gold Standard; where there is more or less probability of repudiation, and according to the measure of probability, I call the result Depreciation. This puts Production and its exchanges, and money, the auxiliary of Production and its exchanges, upon an intelligible footing, without any theories, and with only demonstrated propositions and real science. "Money," the "exchanges," "demand and supply," and the "intrinsic value of gold coin," are all chaos unless thus explained. In order to get wheat, provisions, and sugar without raising and producing them himself, one must have boots, shoes, hats, cloth, etc., to exchange for them, and some one who will buy them; and to manufacture the latter one makes loans in bank, so far as he has not, or cannot obtain, cash of his own. The general result—that is to say, inflation—could not happen, if there was an equal distribution of capital and cash means among men. If all had the same amount, there would be a dead level of equality, and no progress. One man has, say a hundred, another fifty, and another ten thousand pounds, dollars, or francs, and many others have little or none, but greater or less skill to labor.

Man's ability to consume, and his actual consumption of necessaries, depends upon his getting the money to do it, by means of his labor joined with capital. By means of capitalists' and bankers' loans he is enabled to do what he could not otherwise do, consume not only necessaries but luxuries; whereas if the money of the banker and capitalist were not loaned, as happens in barbarous, and more or less in semi-barbarous countries, there would be no such loans and no such consumption; and, therefore, no matter how great the accumulations of treasure in the East, so long as productive energy remains in *statu quo*, there are no new kinds of products to exchange, and hence no change in prices, because there is nothing to change prices. The auxiliary money can be of no *increased* effect until its principal increases; but let us suppose, for the sake of argument, such an increase to take place, and skilled laborers and capitalists with machinery, and a corresponding increase of necessaries (which, by the way, would be impossible perhaps in China), and a corresponding desire to exchange and consume, and we should see great activity though still no inflated prices. But let agriculture remain stationary, capitalists make loans in gold or silver out of their reserves to manufacturers, and let manufacturers produce faster than their goods could be consumed, and prices would be inflated above the former metallic standard. This, however, could never happen in fact, because one of the most important elements of value in gold and silver as money is the persistence of national habits, resulting in slow and gradual changes only, if any changes occur at all. The theory of intrinsic value, then, in gold and silver, aside from their use as money, which the bullionists urge, is false, like most theories. The ratio of intrinsic value in the arts to value or purchasing power, arising from their use as money, is only a fraction of the whole value. The value of them as money arises from their distribution as it actually exists. To disturb the distribution deranges the intrinsic value by making it greater at one place and less at another, so far as any disturbance of the kind is possible. Mr. Ricardo's theory was, that gold and silver are distrib-

uted over the world in such proportions as to accommodate themselves to the natural traffic that would take place if the trade were one of barter. Here is another theory which is contradicted by fact. More silver has been sent to and retained by China, in proportion to traffic, than to any other country, by the civilized nations of the world, because the Chinese would not traffic, that is exchange their teas for European and American goods; in other words, they demanded an exchange for silver instead of goods. In like manner, other nations make demand for certain portions of gold and silver, according to their wants for the arts and for money, or for ballast against inflation, as in the United States, and the uniform competition of all the different demands results in certain proportions being constantly maintained in the quantities annually received by each nation; and all these ratios of demand, operating with the persistence of national habits, make gold at this time, aside from the influence of government issues, and deposit and discount banking, a steady measure of value. Possibly a more steady measure might be attained by restoring silver to its former use, but never unless with the consent of all nations. (2)

All theories, then, being utterly disregarded, the proposition demonstrated is this: The circulation of the United States, under specie payments, consists mostly of bank debt in the shape of notes loaned to producers; these loans cause an overstock of relative necessities, because production is allowed to proceed so far ahead of consumption as to produce a crisis. The crisis has a banking as well as an industrial side, but could not have a banking side without bank loans, as it could have no industrial side without overproduction. The next proposition is that the evil of overproduction can be to a great degree remedied, which for the present I shall not examine, but leave it for the future. If it can be demonstrated that the mischief can be remedied, the problem to be solved is, to show the best method of doing it. The probable remedy, if there be one, stated in the most general terms, is, that as, under our system, gold reserve is not money but only a ballast against the inflation of bank-notes and bank-credits,

the gold ballast must be converted into money, and if such a conversion can be accomplished, then follows the problem already mentioned. If the whole science of production and exchange, as effected through the agency of money, is destined to continue to be the sport of theories and theorists, all theories have some truth in them, and all should be examined, and those adopted that seem to have the most. The use of a convertible bond for conversion of surplus notes instead of a coin reserve in the shape of ballast rather than money, is by no means absurd, if any method can be discovered of stopping inflation before it proceeds to a crisis. The discovery is not yet made, and probably will not be.

The theorists who maintain that a good and safe currency could be obtained by the plan of mutual convertibility between government currency and government debt in the shape of a bond bearing interest at three and sixty-five one hundredths per cent., are entirely right in asserting that convertibility is more in name than in fact under "specie payments" in the United States, although the remedy would be the opposite of what they propose, and are as nearly right as those who insist that safety and security would exist if gold and silver were the only currency, with banks of deposit and discount, free to discount, without such arrangements as would check overproduction; and quite as nearly right as the theorists who maintain that there can be no inflation, or, in other words, undue expansion of bank-notes when convertible under our present banking system, because the latter are contradicted by the crisis of 1857; and, in short, they are as nearly right, or ought to be presumed as nearly right, as any other theorists who have not yet absolutely demonstrated the truth of their theories. These matters cannot be further examined here, but will be under the head of Banking in the United States. Finally, to speak figuratively, we may say, that if we follow the river of Supply up to its source, Production, we shall find that it never overflows, if left to itself, but only when its waters are set back by Credit in the guise of Money; and if we compare the circulation of the fruits of capital and labor to that of

the human body, we may say that obstruction of free circulation through weakness or excess in any part, leads to congestion and crisis, howsoever small or howsoever great the volume of circulation. If we speak as bankers and merchants, we may say that there is derangement of the exchanges, and adverse balance of trade; if we speak as philosophers, that absolute wants must and will control relative and conditional ones, in spite of all human efforts to the contrary; and if we would give a name and title to the science resulting from the investigation (the foundation of all other social science) we may call it The Science of Production and Exchange.

CHAPTER III.

THE THEORIES OF MILL AND PRICE AS TO THE CAUSES OF BANKING AND COMMERCIAL CRISES.

MR. PRICE says a true crisis is a destruction of means, a diminution of wealth ; that the laborers employed were consumers of food and tools, while they produced nothing of exchangeable value, and thus actually annihilated wealth.

The error in these assertions lies in calling one of the effects the cause. If the crop of British wheat were to fail totally in any season, the loss would be not only from thirty to forty millions of pounds through the failure of the crop itself, but there would be losses arising to other producers, from the inability of their home customers, the producers of the wheat, to buy as much as usual, and the disorganization of labor which would follow. If manufacturers of goods never produced beyond the ability of consumers to pay for and consume,—in other words, to give something else in the shape of other productions, or, in still other words, to sell for cash,—there could be no industrial crisis, and continual discharge of laborers, and, on the other hand, no banking crisis caused by the bankruptcy of manufacturers and merchants and their inability to pay bank loans. If railroads, city houses and stores, and public improvements were never built or made beyond the point where they would yield a fair income or a public benefit equivalent to the cost, no crisis could be brought on or intensified by such causes. Therefore, for all practical purposes, and with the view to remedies, we may well say that redundant production, which means production to meet artificial wants, all the way down from those most artificial to the least artificial, in excess of the market for them furnished through the production of

absolute necessities, — in other words still more general, production to meet artificial in excess of production to meet natural wants, — is in a general sense the cause of industrial crises, and that great loss attends them through shrinkage in price, and in some cases total loss of the investments. In time, however, in the United States hitherto, the manufactured goods remaining on hand have been sold, and population and production have made the railroads productive. If this is admitted to be a correct practical conclusion from all the facts, and a correct answer to the question, What is a crisis? the next inquiry is, What is the cause? The theory of Mr. Price, that it is a destruction of means only, cannot stand, because he says that the usual cause is the unproductive consumption of the laborers who work and the loss of the capital, tools, and materials employed; whereas the labor is not wholly, but only partially, unproductive. His statements, however, are clear and emphatic, and eminently true as to the fact of great national loss; but he makes the mistake of calling one of the effects the cause.

Mill, on the other hand, says that a commercial crisis is simply a collapse of prices resulting from an undue extension, and, without saying so, probably intended to have it implied that the national loss lies only in the losses of those who suffer directly from the collapse in the prices of goods bought on speculation. Mill says, also, that the active cause is credit: "What does act on prices is credit, in whatever shape given, and whether it gives rise to any transferable instruments capable of passing into circulation or not." Mr. Price adopts and reaffirms this proposition with his usual clearness and emphasis, on page 168 of his "Principles of Currency." Now credit, unaided by bank and other loans, is available in production only to a slight extent, and to a moderate extent in the distributing markets, by way of raising prices. The credit given by one merchant, — for instance, a commission merchant, who sells prints or cloth for the producer to a jobbing merchant, and by the latter to a retail merchant, — and even the credit extended by commission, importing, and jobbing houses to other houses or

individuals, who buy on the chances of a rise, is confined to a few lines of goods; it does not extend to the whole market. Mere personal credit will not pay for labor expended upon raw materials, like cotton, wool, or pig iron; nor will it pay for the raw materials themselves, for they have cost labor, and the laborers must be paid. Personal credit must therefore first be exchanged for bankers' credit in the shape of bank-notes or bank debt, transferable by the instrumentality of checks, and so invested with a second and further quality which personal credit does not possess, namely, paying power, in addition to purchasing power. Mercantile credit is a very limited, but banking credit an unlimited power,—unlimited at least by anything short of that state of redundant production which causes an industrial and banking crisis. The word "industrial" is better than "commercial." The English mind is wedded to the idea conveyed by "overtrading," and of this idea Mill and Price are the exponents. They all take it for granted that the cause lies in the distributing and not the producing market, as the term "overtrading" implies. The difficulty is that they have explored the course of the stream of production where it widens out into distribution, instead of following it up to the head-waters. If we suppose all production in a given country to stop at a given time, and distribution to go on until the last article is sold and consumed, all bank debt in the shape of notes and book entry will be retired, and capital no longer productive, and therefore worthless; money in the shape of gold and silver will also retire or leave the country, for the most part. The office of money, therefore, is not only to distribute the fruits of capital and labor, but to pay labor to produce as fast as these are consumed. The occasional disposition of fixed or circulating capital is merely incidental to the distribution of the fruits. If production were to stop, the check to consumption by rise in price of articles bought on speculation, through credit, would lengthen the period of rising prices by the gradual diminution of commodities. The *nominal* rise of price of the articles bought on credit would therefore be maintained, and the speculation

successful, through the maintenance of the rise. This is an ideal case, assumed to illustrate the bearing of production — the source of supply — upon speculative purchases in the distributing market. In the case supposed there is a nominal rise by way of price. Turn now to actual facts, to realities, and how is it? In nine tenths of all the cases actually occurring there is *nominal* and therefore real loss to those who buy on credit, whether they use it directly, or on the other hand indirectly, by exchanging it for banker's debt, which has paying as well as purchasing power, making the banker their creditor instead of the seller of goods. If in nine tenths of all cases they lose, it follows that the loss comes from supplies thrown upon the distributing from the producing markets, thus absolutely increasing the stock, as well as from the diminished consumption through rise of price, which causes a relative increase of the supply. Hence, looking at the subject from this abstract quarter, it is certain that every crisis comes from a disturbance of the relations between producers and consumers. In the most abstract form, the proposition demonstrated is this: A "commercial" crisis, sometimes called "overtrading," is, when reduced to its most abstract or general terms, an overstock extending to all or some commodities intended for distribution and consumption, over and above the ability of consumers to pay for and use, — in other words, beyond their immediate wants, — and carried to such an extent as to require the discharge of laborers upon an extensive scale. This increases the overstock by making the laborers comparatively non-consumers at the same time that they become non-producers, causing shrinkage in values, forced sales and bankruptcy for the producers, and the same results for the distributors or merchants, and through them for the bankers. The latter are the first movers and the originators of this disturbance. This I affirm now in answer to the question, What is the active cause?

Leave out the delays from time and space; suppose no money to be necessary to exchange and no merchants to distribute the fruits of labor and capital; every producer is daily met by other producers, and exchanges the fruits of his labor

for theirs. Can there be any undue accumulation or redundant production by any one producer? Not to any important extent certainly, for all producers will buy only what they can consume, and that is exactly what they can pay for, and they can pay just to the extent that they can produce themselves. No one can produce to excess, because no one can produce beyond the ability of others to consume. But while there can be no overstock on the side of absolute necessities, can there not be on the side of those required to satisfy wants more or less artificial — the producers who produce to satisfy absolute wants being unable to make an overstock? There certainly can, if they will not only all trust each other, but make the producer of absolute necessities also trust them. The overstock that follows, however, will shortly come to an end, because the rise in price of absolute necessities through purchases on credit, and the impossibility of forcing the grand total of all necessities to rise in quantity for a long time above what may be called the base line of population and agriculture, devoted to absolute necessities, or, to simplify the expression still further, *the agricultural base line*, will soon bring about an equilibrium of production. The ability of the producers to produce on credit would soon come to an end in all cases where no artificial cause interposed to prevent it by making the producers of absolute necessities temporarily share the loss, and thus spreading it as it were over all producing capital.

It is production in certain quarters, in excess of production in other quarters, then, which produces the crisis which Mr. Price asserts is a destruction of means. The destruction of means is not an active cause, but only one of the results of an active cause; and that cause is a want of harmony in production. Mr. Price, like Adam Smith and M. J. B. Say, supposes money to be a commodity like a cart or any other tool, and so places the commodity theory of money in the plainest light possible. He also asserts that deposits arise from the sale of commodities which are paid for by a balancing or set-off of debts. From these propositions his error in relation to the cause of commercial crises naturally follows.

Metallic money is not a commodity, but a series of units, as already shown, and the value of the unit embodied in the metal lies wholly in what it purchases and not in itself — value in the actual metallic unit being thus wholly conventional, and therefore merely ideal. The units are not a commodity, but units of valuation, purchase, and payment, limited by a commodity of universal exchangeable value in this conventional character. It is this unit, embodied in metal, or bank-notes mostly covered by a deposit of metal, which pays for goods through clearings. It is not in fact units of bank debt which pay for commodities through clearings, but where goods are merely sold, not for consumption in reality, although they may be intended for that purpose, it is precisely the same thing whether there is gold in the reserve on that particular occasion, or whether there is none, because if gold were taken out of the reserve by the buyer to pay for the goods, it would be immediately deposited by the seller in the reserve, as soon as the sale took place. So far as the reserve remains the same after sales take place, it may be apparently equivalent to, but it is not in fact a mere balancing of debts. The buyer's debt to the bank, which results from his loan in bank, to enable him to buy the goods, is not set off against or balanced by the debt of the seller to the bank for a like amount, because a set-off or balancing of debts destroys and annihilates both debts mutually ; but in this case the new debt to the bank, created by the loan of the buyer, does not balance but annihilates and takes the place of the debt of the seller to the bank, leaving the same amount of bank debt standing as before. Whatever profit the buyer pays the seller over and above what the goods cost to the latter creates precisely so much additional debt to the bank, and therefore precisely so much additional debt due by the bank to depositors, whether metal or bank-notes be carried away by the seller, or whether they be not. If they are not carried away bank debt is increased by so much over and above reserve ; if they are carried away bank debt over and above reserve is increased by precisely the same amount ; the ratio of bank reserve to bank debt is diminished to the

same extent in each case. Absolutely unproductive consumption, if caused by bank loans, diminishes the ratio of bank reserve in like manner. Loans to pay for labor and raw material, so long as the product remains unsold, have the same effect upon reserve. Now the amount of absolutely unproductive consumption through bank loans is comparatively small, and there could surely be no goods to sell if none were produced. Therefore the origin of that part of deposits which is Total Bank Debt over and above Total Banking Reserve lies in production and the succeeding profits of the several merchants who buy the goods, deducting from the total absolutely unproductive consumption.

The fountain and origin of this part of deposits, therefore, may be found in that part of deposits which is in excess of reserve. But if a cash buyer who does not borrow his cash — his possession of the cash being a demonstration of the fact that he or some one else for him has caused an equal amount of goods to be exchanged for consumption — buys the goods of the merchant or other producer, who purchased them by the aid of a bank loan, which remains unpaid, the latter, by means of the cash, pays so much bank debt. It is entirely immaterial whether the cash consists of a credit standing in bank to the account of the buyer, or whether it consist of gold or bank-notes, because in either case it diminishes by so much the grand total of bank debt over and above the grand total of bank reserve. Hence the increase of bank debt over and above reserve arises from production, in the first instance, as the primary cause, and the profits accruing to the several buyers, who add further value to the product by their capital and labor; including, of course, all increased cost for interest, carriage, and insurance, as the secondary cause. On the other hand, the increase of bank reserve, which is relative diminution of bank debt, arises from sales of goods to consumers. Hence it is absolutely certain that sales of goods to consumers, in other words for cash, are accomplished by paying money into the reserve, while purchases of labor and raw material and the succeed-

ing charges, expenses, and profits of the distributors, who by buying the product intervene between the first producer and consumer, create bank debt over and above reserve, and therefore deposits. Deposits arise, therefore, not, as Mr. Price asserts, from the sale, but from the production, of goods; and the total of deposits, *minus* reserve, shows the total of production accomplished by means of bank loans. This total is an amount of production over and above what could have taken place without deposits and bank loans. To this total may be added the *resulting* totals arising from a considerable part of savings bank loans and loans by individuals, as I have demonstrated elsewhere. The latter totals come from savings of wages of labor deposited in savings banks whose products have been sold to merchants who have not yet found a consumer's market, and from profits of production on the same products paid to capitalists who have made loans to producers out of those profits.

But, again, Mr. Price says there can be no inflation, no excess, of bank-notes. He is right except as to the small total of absolutely unproductive consumption arising from bank loans of bank-notes, because the notes are all called for to pay for labor, raw material, expenses, charges, and profits arising between the original producer and consumer. *For these purposes* the notes are all wanted. The fallacy in the premises lies then in the fact that production is ignored and distribution only considered. The notes are undoubtedly all needed, if it be necessary to bring to pass all this production in advance of consumption. But this advance of production is, as I have shown elsewhere, the cause of banking, industrial, and commercial crises, and the circulation of the notes which causes the excess ought to be checked. Therefore, if production can be limited by consumption in proportion to the increase of bank reserve, as compared with bank debt, as I have shown elsewhere that it can be, such limitation would check the circulation of bank-notes used to cause such production exactly by the extent to which it might be carried.

Mr. Mill, on the other hand, mistakes a collapse of credit

used in buying up one article of commerce found in the market, like tea, for instance, for a commercial crisis. But the former embraces only a small part of the commerce, the latter the whole of it. He has no idea whatever of overproduction, or what may be called excessive production on credit by the aid of bank loans. He lays down, however, one proposition about money which is true and fundamental, and which I have demonstrated to be true. He says that money acts on prices only by being tendered (he might have added, and paid) for commodities. This I have shown to be true, because money is a series of units of valuation, purchase, and payment. Had he followed this proposition down to its necessary conclusion, — that the units must have some practical limitation, either in the material of which they are made or in commodities sold, if they are to answer the purposes of what we call money, — a rigorous and cautious analysis might have conducted to the solution of the problem, What is money? He might have discovered that there are two elements of price: first, increase or decrease in the total volume, which means the total number of units circulated (tendered and paid) in exchange for commodities; and secondly, increase or decrease of circulation of those units, whatever the total volume or number of them may be, through loans.

This would have opened before him the character and function of money, and would possibly, by the aid of rigorous analysis, have carried him to the correct conclusion, that all circulation of money, in excess of that given it by its owners (depositors), and therefore in excess of commodities actually exchanged for consumption, must necessarily, after deducting the small amount of absolutely unproductive consumption which it causes through improvident or accidental loans, be expended in paying for labor, services, and raw material, to produce something which is in excess of any actual market, and therefore only on credit and in hope and confidence of a market, and which ought therefore, if practicable, to be limited universally at some fixed point. It would have led him also, perhaps, to the conclusion that

money is not a commodity, because it can by no possibility be separated from its use ; it is only money while it is being used. If it acts on prices only when tendered and paid, the total quantity on hand does not affect prices, but only the greater or less use of it, and that must depend upon the amount of it being paid out, while the latter depends upon the amount of production, and not the amount of consumption taking place. Gold and silver are as abundant as ever in England, and so is paper money in the United States, but the circulation of money has been greatly contracted in both countries within the last four years by contraction of production. If gold or silver coin is a commodity like wheat, its price, which is its purchasing power or exchangeable value, reckoned in wheat or other commodities, ought to depend, like wheat, on the quantity in market, more than on the quantity which is being sold ; but Mr. Mill as well as Mr. Price, while insisting that money acts on prices only while being tendered (sold) for commodities, insist with their predecessors, Adam Smith and M. J. B. Say, that the mercantile theory of intrinsic value in gold and silver coin is true, because each is a commodity. It is impossible to arrive at any correct conclusions about the use of money as it acts upon the production and exchange of commodities upon any such theory.

CHAPTER IV.

VALUE AND PRICE.

VALUE and Price are in reality the same. Intrinsic value is a contradiction in terms; because all value *ex vi termini* is extrinsic, that is to say it is something other than the thing valued, and of which, commercially, the thing valued is the equivalent. If the thing valued be placed on one side of a simple equation, that which gives it value takes the other side: if a bushel of wheat is worth one dollar, one dollar is worth a bushel of wheat. Therefore the assertion that gold coin possesses intrinsic value and paper money does not, is false, because it affirms that gold coin is valued by itself, when it can only be valued by what it will exchange for; and if the same amount in paper money will exchange for the same things as the gold, both possess the same value, which is extrinsic, and not intrinsic. There is, however, a latent truth in the popular fallacy, that gold coin possesses intrinsic value: if it possess not intrinsic value, it certainly possesses intrinsic utility to so high a degree that it is worth on the average nearly or quite as much in the shape of bullion as of coin.

But what is this intrinsic utility? Those who affirm that gold coin possesses intrinsic value will reply, Utility in the arts. But herein lies another fallacy less apparent, but quite as great as the first, because both are not only partially but entirely opposed to the truth. The intrinsic utility named is utility as a material to manufacture money units, because universal convention, evidenced by universal use, makes gold the material out of which to manufacture the unit. Did gold possess no utility in the arts whatever, the whole of it would be found in the shape of coin, and the only result would be

to make each money unit heavier than now. The value of the commodity used as money, then, is entirely absorbed in its value as money. Intrinsic utility means only that, intrinsically, gold coin can be used as money. There is, however, another fallacy of a different kind, arising from stating only a part of the truth. It is intrinsic value in the arts which has led to the idea of intrinsic value in gold as money, and has retired large sums from circulation, while utility in the arts tends to absorb a considerable portion, as it is cheapened by a more active circulation, and by the use of paper and credit money. Utility in the arts does not make the gold any more or any less money than it would be without such utility: it only furnishes a sound reason for its universal adoption as a material for the manufacture of money units. That sound reason is, the tendency of an undue expansion of the volume of money units through coinage, government and bank issues, and consequent cheapening of gold bullion, to be neutralized by a corresponding absorption of gold in the arts; while an undue contraction, by the withdrawal of bank and government issues, or diminished circulation of gold, is in whole or part counteracted by the coinage of bullion and plate. Thus, the popular idea of intrinsic value in gold is resolved into intrinsic utility, arising not only from the fact that it is a material limited in quantity, but from the further fact that its utility in arts tends to moderate excess and supply defect of money units made tangible in coin. The value of money units made tangible in gold coin, of money units evidenced by and made tangible in bank-notes, and of intangible units evidenced by entries or inscriptions on bank books, is wholly and equally extrinsic, and consists of the things for which they will and do exchange; and therefore the whole amount of units of money expended for purposes of consumption in the United States in one year marks the value of the whole number of units of weights and measures of commodities bought. But inasmuch as, on the average, incomes are nearly all expended in consumption (consumption is within a small percentage, on the *average*, equal to production), an increase of money units by government and

bank issues will in time increase the prices of these units of weights and measures in proportion to the amount of the outstanding issues. But this inference is too hasty: it includes and affirms one of that kind of fallacies, the assertion of which without regard to actual facts has rendered the establishment of a science of money and exchange almost impossible.

It is not necessarily true that prices will rise in the proportion named, because annual savings are made, and they are all made by refraining from consumption, that is to say by not spending money when it might be spent. But if we suppose five per cent. of income to be saved on the average only, and government and bank issues to take place, so as to double the whole volume of money, even then, ought not prices to rise fifty per cent.?

To assert that they would, would involve a fallacy of the same kind arising from rejecting important facts. If money, and therefore capital, were evenly and equally distributed to every consumer, and all consumers were to consume alike, the question might be answered in the affirmative; but the distribution is not even and equal: some consume all their income, and vast numbers are obliged to contract their consumption largely after an industrial crisis. Price in money, therefore, varies according to the demand, and prices will grow higher or lower as the average quantity of money expended in consumption increases or decreases. By the same rule the average prices of money, reckoned in units of weights and measures, will increase or diminish in proportion to the quantities of the units of weights and measures in market. The amount of money expended in any one year will depend upon the amount possessed by each buyer on the one hand, and the amount he saves, or refrains from spending, on the other hand. If he is a capitalist, and has money continually coming into his hands which he is unable to spend, and invests it in banking, or in the discount of bills and notes, when there is an active commercial demand for loans, and interest is rising in consequence, what is done with the proceeds of these loans? They are invested in production, because

they can be invested in no other way, and are wanted for no other purpose. On the average, there can be no overproduction of things not absolutely necessary in excess of those absolutely necessary; but so long as loans without any limit other than that of an industrial crisis are made, and because there is no method of preventing or regulating them, the excess of money that capitalists cannot use for themselves, and the whole of that which the banks can lend, is distributed by loans, and increases the yearly average of money, as an instrument to buy with, in the hands of laborers, producers, and sellers of raw material. This raises money prices, by increasing the quantity of money on hand and in readiness to spend with these laborers, producers, and sellers of raw material, who embrace nearly the whole of the active members of society: the more money there is in the hands of the whole community to buy with, the more money there is loaned, so much more money there is to pay out for articles to be consumed. To give *full* effect to increased issues by way of raising prices, the additional issues must go into circulation by loans. The loan market varies, however, and this is the reason why prices do not necessarily respond to the full extent of the increased issues. But this is not the whole explanation of this complex subject: the quantity of absolute necessities produced is, almost all, annually consumed, and there is no overstock; and for that reason, and that only, there cannot be on the long run — that is to say, upon the average, ten years more or less — an excess, glut, or overstock of things not absolutely necessary to existence. But for a portion of the period — say the first half — in which the average is made up, there can be an excess arising from two causes: 1st, the rise of prices caused by the expansion of circulation referred to, affecting even the commodities in which overstock is taking place; 2d, the ability to cause, by means of loans, production of overstock, or excess in those things to produce which the loans are made. If the consumption is equal to the production, if the sales for cash equal the loans, prices cannot possibly rise, because, then, as the units of money increase in circulation for the purpose of



buying what is in the market, so also and precisely in the same ratio do the units of weights and measures of those things which are actually bought. As the denominator (money) increases, so does the numerator (weights and measures of commodities), and the ratio or fraction continues to be, therefore, the same. But it is a common saying, and a common belief among bankers, merchants, and manufacturers, and it is, moreover, true, that prices rise up or nearly up to the time of a crisis, and then fall, not only as much as they had risen, but considerably more, in the articles not absolutely necessary to existence, and in which it is impossible to assign, by any such abstract rule as writers refer to (*e. g.* M. J. B. Say, Mill, Price, and others), the limits of possible economy and possible extravagance. It is all a question of *possibility* only, upon their theory, growing out of the relation of what is limited to what is absolute. The truth and the whole truth lies in these few words: *Absolute necessities cannot be overproduced; relative necessities cannot upon the average be overproduced, because the producers of the latter will starve unless they stop producing at regular or irregular intervals.* Hence it follows that so long as the producers of relative necessities can obtain absolute necessities with the proceeds of loans put in circulation by them to buy absolute necessities they will do so, while there is an apparent advance in the price of what they sell, because it furnishes them the means of paying some of their loans, leaving a profit besides. Therefore, in taking an inventory, they will reckon the overstock in figures showing a profit, as will the merchants, who also have overstock which they cannot sell. The money units in circulation have increased in numbers in the hands of all buyers, bankers and capitalists included, and so the increase of units has been mostly in the denominator of the ratio (money units), but the stimulus of advancing prices and *apparent prosperity* has increased also somewhat, but not in proportion the units of weights and measures of commodities consumed, (the numerator of the ratio) because people spend more; still, because the denominator (money units) has increased in excess

of the numerator (units of weights and measures of commodities), prices in money have therefore risen. Hence it is not only probable but absolutely certain, that prices rise, and can rise, only by the aid of bank loans, when and so long as an overstock of relative necessities is being made; and prices fall as soon as the overstock brings on a crisis and forces goods on the market. If the overproduction of relative necessities in any one year were impossible, therefore, as the production of absolute necessities is in fact impossible, prices would be stable and uniform; the present production of gold might be quadrupled for years without raising prices, and, on the other hand, the entire failure of the annual production of gold would have no effect whatever, because the money unit substitutes for gold-money units, in the shape of bank-notes and bank credits, to the precise extent that they have become and are substitutes for gold units, would of themselves increase and take the place of some of the gold, and liberate so much gold for use in those countries having a gold currency. Moreover, any further defect would be remedied by coinage of bullion, and, if necessary to an equilibrium of prices, of plate itself. I say *if necessary*; but it would not be necessary, because a more active circulation, sufficient to produce equilibrium, would arise from the large masses of metallic money (in France, for instance), now kept partially out of circulation by the beneficent operation of that fallacy of what is called The Mercantile System, — the assumption that gold and silver coin possesses intrinsic value. Hence I lay down the universal law, as the result of the foregoing demonstration: —

Were Production and Consumption alike within short periods; were production balanced by consumption within one year, there would not be, because by no possibility could there be, any material excess or defect of prices; rise or fall of price in any one article would arise only from excess or defect relative to the rest. Were the money units all metallic, and should the metal in ingots largely increase, there would be sooner or later, undoubtedly, a rise of prices, by a general increase of money units; the denominator would in-

crease in excess of the numerator of the ratio. But what do bank loans furnish? Money, undoubtedly, and not what is most erroneously called Credit. It is money in the shape of gold coin, silver coin, and bank-notes, not only for the most part, but altogether. Suppose payment were made partly by checks. The sellers of raw material and the sellers of labor obtain payment of the checks in the same medium; if the sellers of raw material send in the checks for collection and credit of their account in the banks where they deal, a "clearing" might save the associated banks the trouble of handling the coin or the notes. It is precisely the same in principle as the payment of coin or bank-notes to the laborers; the difference is merely a matter of the coin or notes getting back to the common or consolidated fund in the deposit and discount bank, a little later in the latter case, and a little earlier in the former. It is a great fallacy to suppose that there is any difference in principle between these two cases: that the first is a circulation of bank credit; the latter, of money. Nevertheless, it is the fallacy upon which the Bank Act of 1844 in England was founded, through confounding the distinction between potential and actual money; money not in circulation, and money in circulation; in short, by adhering to the mercantile theory, that gold and silver coin are commodities and possess intrinsic value. It is not merely the excessive and ill-regulated circulation of money, therefore, but circulation not regulated at all, which enables the labor and material placed in overstock to be paid for, and prices to advance until the materials of a crisis are stored up, and the crisis comes as the natural remedy.

The most marked of all the phenomena in the whole progress of this commercial, industrial, and banking cycle is the rise and fall of prices,—a phenomenon described in its ascending scale as abundance of money, and in its descending scale as scarcity of money. This phenomenon has no objective, but only a subjective reality; in other words, it is effect in both its phases and not a cause of itself. Moreover, the overstock of the services and products of labor is also subjective only; it is effect and not cause: it is the effect of

bank loans, which enable producers to pay for labor and materials going into overstock, and of the ascending scale of prices arising from the increased circulation, which enables them to sell at a profit while the overstock is being produced. The purchasing power of the money they put in circulation to pay for labor and materials may be and is constantly growing less, but so long as it pays their bank loans and a little more they are making an apparent profit : the realities of the case do not appear until the crisis comes. Rise in prices, then, comes from increased circulation, not of bank credits, but of money, through bank loans ; bank credits are not themselves circulated, but are powers to circulate money out of the common or consolidated fund in bank, and have no objective, but only a subjective existence. They are the result of bank loans, and not the cause of bank loans. Overstock is also the result of bank loans and rising prices up to the time of the crisis. The overpowering and uncontrollable crisis brings the overstock to market ; the producers as well as the bankers often to bankruptcy ; and makes low prices in spite of abundant money in bank coffers, by diminishing the ability to pay for what is offered for sale, and thus contracting the circulation of money, the direct opposite of the previous expansion. The rising and falling prices taken together and compared with the things purchased, would show average prices. Had prices been steady at the average, it would have arisen from the fact that the contraction of circulation was equal to its expansion, as I have shown elsewhere ; and this equality of expansion and contraction of circulation would have arisen from the fact that all the products of labor were exchanged for cash as fast as produced, causing bank loans to contract as fast as they could expand. A metallic reserve, where production and consumption thus balance, would be unnecessary, moreover, so far as steadiness of prices is concerned, and therefore might be dispensed with altogether. Steadiness of prices would come without a metallic reserve if the products of labor would always sell. These products of labor would all sell, if not in excess : hence it is a great mistake to affirm that a

crisis arises entirely from unproductive consumption. It is an excess of energy of production which causes the crisis, and the creation of the excess is made possible by two compound factors, — the ability to borrow money out of the consolidated deposit fund, to pay for labor and material, without any other limit than an impending banking crisis ; and the scale of prices, constantly rising up to that period, which makes production, as far as sales can show, profitable. The final result is, that during the whole cycle of rising and falling production, and consequent rising and falling prices, the total production is no more than it would have been had production been steady, in like manner as average prices equal rising and falling prices ; the latter being in fact the result of the former.

Harmony of production, therefore, is as essential to national wealth as energy of production. Want of harmony, money aside, is the cause of banking, commercial, and industrial crises ; and unproductive consumption to a certain extent is one of the effects : it is not the cause of such crises, as Mr. Price asserts. England and the United States are periodically sufferers from this cause, and of late Germany has suffered from the same cause. The "German Indemnity" was really German Loss. Too much labor was devoted to other purposes than the production of absolute necessities ; the equilibrium of production was destroyed. France, on the other hand, has comparative harmony as well as energy of production, and frugal habits are the result.

CHAPTER V.

BANKING IN ENGLAND AND EXPANSION AND CONTRACTION OF CIRCULATION UNDER THE BANK ACT OF 1844.

BANKING in England is like banking in the United States in all essential particulars. The difference lies in the fact that in England the circulation out of banks is carried on, for the most part, in gold and silver coin, and gold vouchers, called Bank of England notes, given by the bank for a like amount in gold coin; the remainder of the circulation is effected by notes issued for a like amount of government debt due the bank, and amounting, perhaps, to one sixth of the whole. For all practical purposes, therefore, I call the money circulated outside of banks coin. .

But why do I say circulation outside of banks? Is there such a thing as circulation inside of banks? I use the term in order to lay a foundation to make my meaning clear. Such a phrase as circulation in or into a bank, or circulation out of a bank, is never used, because it is entirely at variance with all *theories* upon the subject of money or banking, and therefore with common opinion. The common theory, and therefore the common belief, upon the subject is, that a bank deals, either altogether, or for the most part, in what is called debt; that metallic money is a commodity, and that bank-notes, although nominally money, are in truth money only so far as there is gold in reserve to pay them. Now, it is susceptible of the clearest demonstration that gold coin as money is not a commodity; to affirm that it is a commodity, involves a fallacy which has hitherto rendered all attempts to explain the phenomena of circulation, banking, exchange, and commercial, industrial, and bank-

ing crises impossible. Nevertheless, it is not only a fallacy, but it is almost impossible to resist it, because it approaches so closely to the truth. Gold bullion is, with slight difference, worth its weight in coin, and coin *minus* alloy is worth its weight in bullion; therefore, says all the world, gold coin is a commodity, and a paper dollar is worth nothing except in the promise written upon it. The premises and the conclusion are unimpeachable; the fallacy lies in not carrying into the premises the whole truth of the case. Gold bullion is useful, not only to make coin, but also plate and jewelry; and it is also eminently useful in dentistry, and in other arts and manufactures besides jewelry; but all this is incidentally and not principally important. It is incidentally important, because it has carried into plate and the arts, as I have shown elsewhere, an amount of metal equal in weight, and therefore in value, to one half of all the gold in gold coin throughout the commercial world. Previously to 1844 the Bank of England was only bound to maintain the convertibility of its notes, keeping such a reserve as it might choose for that purpose; since 1844 it has issued notes secured by a like amount of government debt, as above stated, and also what may be called gold vouchers, having the semblance of bank-notes with an equal reserve in gold to exchange for them. Has the Bank Act of 1844 accomplished any important change? If the volume of gold coin, gold vouchers, and bank-notes put in circulation since the Act of 1844 is smaller, as compared with the volume of bank-notes and gold put in circulation before the act, relatively to the units of capital and commodities distributed and exchanged, the range of prices has been relatively less, but the average variation has been the same. The tendency, however, to diminish the ratio of variation in prices, by the use of a so much larger proportion of metal in the circulation since 1844, may have been, and probably has been, largely counteracted, by maintaining a much smaller reserve in the joint stock and private banks; the smaller the total reserve the larger, and the greater the total reserve the less, the circulation; higher prices accompanying the former, lower the latter. As the

banks do not publish their condition, the only evidence of change is in the reserve of the Bank of England, where they keep a large portion of their metal. The Act of 1844 was passed upon the theory that a metallic circulation being of all others the steadiest, a circulation consisting largely of notes having an equal amount of gold behind them would vary in amount as a metallic currency would under like circumstances. This theory was and is absolutely true; it is as true to-day as the day the Bank Act passed. The circulation of England has for more than thirty years varied substantially as a metallic one would *under like conditions*. This is saying nothing beyond the truth of the case: the small amount of the notes of the bank secured by government debt, when compared with the total of the money in circulation, may well be regarded as of no importance in respect to the question of variation: we may call the circulation a metallic one for all practical purposes.

The theory, then, is true, but what has it availed? Prices have varied up and varied down, and there has been no more steadiness of prices than before the act was passed. There has been no gain whatever in that respect; and, if any general result as to prices is desirable, it is that steadiness which is supposed to belong to a metallic circulation, in contradistinction to one of paper.

FALLACIES IN THE THEORY OF THE BANK ACT OF 1844.

There must, therefore, be a fallacy in the theory of the Bank Act of 1844, if it has given no additional steadiness to the circulation. The theory is undoubtedly true, but, for the reason given, it cannot contain the whole truth. The founders of the bank took it for granted that gold coin in its character of money is a commodity, and that deposits, exclusive of reserve, are a substitute for, but are not, money. I have already demonstrated that gold coin in its character of money is not a commodity, and that in the ratio of price the question is not, what kind of units, but how many units, whether metallic, paper, or credit, are in the denominator? What shall I say to the other assumption, that bank credits

are a substitute for, but not, money? This assumption is historically and logically true for all practical purposes, but not absolutely true; absolutely speaking it is false, as I have shown elsewhere. But why do I say that the proposition is historically and logically true? Because bank credits have no objective reality in themselves; they are the development and the result of deposits of metallic and paper money; they are not a system or a process having an independent existence of itself, but a debt arising to depositors, *originally* from the deposit of coin and notes. This debt is not money in itself. Therefore the assumption referred to is true. But the assumption does not contain the whole truth; there is a monstrous fallacy lurking in it, arising from the supposition that bank credit has a positive existence of its own independently of money, instead of being merely the result of the deposit of coin and bank-notes, and the loan of a large portion of these by the banks; and that a credit in bank is, therefore, substantially like all other credit. This fallacy arises from the former one, that gold coin in its character of money is a commodity circulating as a commodity, while credit circulates as credit. Money having conventional value only can by no possibility be, in its character of money, an ordinary commodity, although the material of which its units are made may be. It is impossible to understand the use and operation of money upon any such theory. Money, moreover, having only the equivalent of purchasing and paying power, cannot be a tool, as it is sometimes called, nor can it give rise to "double barter," for it was devised in order to get rid of barter. Money and the circulation of money are practically, therefore, one and the same thing; the units of money in the shape of coin and bank-notes (credit units *might* be, but now *are not* used) are the means of effecting the circulation of money. No man by means of a sale procures gold as a tool to enable him by a second and further use of the tool to procure what he wants. He sells for money, and he buys with money; after he has sold for money another man sells to him for money; after one man has purchased of him for cash he purchases of

another man for cash ; sales offset sales and purchases offset purchases ; one man's sale is another man's purchase, and one man's purchase is another man's sale ; mutual wants producing mutual action and reaction. The question, then, of price absolutely and of price relatively, of high prices and low prices, and of steadiness and unsteadiness of prices, depends directly upon the number of units of money circulated to distribute and exchange a given number of units of commodities and capital. If a large amount of inconvertible paper, much larger than the amount of convertible money which precedes it, as in the United States, or rather more than equaling it, as in France, be issued, by governments or banks, a much higher range of prices is made *possible* ; and if additional circulation takes place — that is to say, the circulation of an additional number of units, as in the United States, by reason of the issue of them by government — a much higher range of prices is seen ; but if circulation is not increased in proportion, and the metallic money retires largely from circulation, as in France, prices may continue comparatively steady. The question, then, of prices under a system of deposit and discount banking, developed to a high degree, as in England, depends upon the amount of money, that is to say the number of units of money, put in circulation and kept in circulation by the banks ; there is always metal enough in the common reserve (as it may well be called) in the Bank of England to pay every dollar demanded, in coin, unless in case of panic ; the amount of possible circulation which could be effected by means of this consolidated fund has never been reached ; it is checked by a greater power than any power existing in a thing like money, which has only conventional value ; it is checked by the impossibility of making sales ; the exchanges of what has been and is being produced, for the units of conventional value called money, are blocked ; bank loans cannot be paid, and production is brought to a stand. The subjective process of the circulation of money is controlled by the objective and paramount influence of production, distribution, and consumption. Money and the circulation of money are but

means to an end ; the chief end is consumption, through distribution following production ; and, therefore, when by the operation of the forces at work consumption is checked, circulation of money must be checked also. The extent of possible range of prices upward, under a fully developed banking system, is determined by the total number of units of metal or paper, or both, by the extent of possible production by means of bank loans, and by possible consumption.

Had the volume of inconvertible paper issued by the United States government and the banks during and after the late civil war been only one half the amount actually issued, or had the energy of production, and therefore bank loans, been equally reduced, the range of prices would have been much lower, and possibly not more than seventy or seventy-five per cent. of the total actually reached.

Moreover, bank credit, when convertible, being entirely the result of the original deposit of metallic and paper units, and bank debt over and above the reserve the result of bank loans, it follows that the total of bank loans shows the amount of circulation that has taken place to pay for labor and materials resulting in products not yet consumed, or at least not sold for cash, while the total of deposits and the total of reserve taken together indicate, with unfailing accuracy, the condition and amount of circulation inside as well as outside of banks, as it changes from time to time. Circulation, therefore, being a process consisting of payments into, out of, outside, and inside, of banks ; if *bank credits*, which are the result of loaning out deposits, vary without regard to bank reserve, they necessarily vary also without regard to the metallic circulation going on outside of banks. But as the whole question is one of circulation, and as there has never yet been found any limit to the sufficiency of the consolidated fund in the shape of reserve to supply all ordinary calls, the credits in bank — in other words the inscribed debts of record due from banks, and resulting from bank loans — are in fact so many powers (equal in purchasing power to a like amount of coin or bank-notes in possession) to put in circulation from time to time a like amount of money in the

reserve; and the average efficiency of these powers to raise prices depends entirely upon the average amount of circulation, and consequently the amount of exchanges they cause to take place over and above the circulation required to make the exchanges to supply consumption, or in other words the efficient demand for actual use. The value of coin as money being conventional, and lying wholly in its purchasing power, as already shown, it avails only as a unit in the denominator of the ratio of price, and this is precisely the case with the bank-note; but that is only a unit evidenced by a promise of a bank or banker written upon it, and a bank credit is precisely the same thing, except that it differs in the form of the promise. In the nature of things, therefore, and by the most rigorous reasoning, it is impossible that there should be any intrinsic difference between these three kinds of units in point of purchasing power. Each of the three has conventional value only, although the field of convention is the largest for the metallic units.

The development of circulation through deposit and discount banking in England, has therefore — through the process of “clearing,” which by general consent could be effected as well without as with a metallic reserve — furnished a practical demonstration of the proposition which I have already proved directly and by analysis, that gold coin, as money, is no more a commodity than bank credit itself. The intrinsic value of gold is nothing but intrinsic purchasing power. Banks might be established without any reserve, if “clearings” for all exchanges could take place; and we should then have a repetition of the same phenomena in England, with perhaps higher range in prices, until at last the payment of money for raw material, skilled and common labor, and services, were rudely checked; and this is one of the phenomena of a commercial, industrial, and banking crisis, when the circulation is metallic as well as when it is not. There would be, under such banks without reserve, for a long time, a descending, as there had been for a considerable time before an ascending, scale of prices, and there would then be for a short time a stationary condition of prices, and the cycle would then

be accomplished as it had been before with gold. Metallic money has thus through banking not only practically demonstrated the fact that it is not a commodity, but that its use may lead to banking crises, as well as the use of credit; the amount of circulation capable of being effected by its units being the same, and productive of the same effects, as a like number of mere paper or credit units. It has further shown that, prior to a crisis, even when it constitutes the circulation, there is always an ascending and after it a descending scale of prices, with no more steadiness than under a system of currency with less "*metallic basis*."

But inasmuch as banking has *practically* demonstrated the proposition proved before from the admitted premises (conventional value) that gold coin as money is not a commodity, and that clearings might, although they do not, take place, without any banking reserve, when the whole circulation is by supposition units of bank credit only, what is the nature of this bank credit? Is it like ordinary mercantile credit, or is it like nothing but itself? The latter unquestionably. A brief analysis will demonstrate the truth of this proposition. Abolish all money in the shape of coin, notes, and credits, restore barter and bring together two producers ready to exchange. One values a unit of his commodity as worth two of the other's, and they exchange accordingly. To give greater efficiency to the rude exchange, I suppose the two producers to value their commodities in abstract units. These abstract units are but a mode or process of valuation; it differs from the exchanges of our time in the fact that two commodities are required; and without the use of some kind of money, which enables us to dispense always with one of the commodities, and put in its place something possessed of conventional value, we should be compelled to fall back upon the same process. All the exchanges capable of being effected by mere personal credit, and such is mercantile credit (money being by hypothesis non-existent), are but barter; the moment that one commodity possessed of "intrinsic" value is dispensed with, and something possessed of conventional value takes its place,

and thus enables us to dispense with the former, the next moment we have money. Money is always redeemed with money only ; personal credit is never redeemed ; it is liquidated by barter or money ; it possesses no general exchangeable and conventional value like money. Hence it is a monstrous fallacy to assert that bank credit, or bank debt, whichever we call it, is like mercantile credit. A bill of exchange may be, and, indeed, always is, used in international, as it would be in national trade, in the absence of banks. It is generally asserted that this instrument, of itself, forms a species of mercantile currency, similar to the credit currency of banks, as that currency is sometimes called. A greater fallacy than this, abundant as financial fallacies are, scarcely exists. Has a bill of exchange a general conventional value or purchasing power like that afforded by the units of bank credit? Is it redeemed, that is to say, exchanged through redemptions, always for itself, as money is? If it be so redeemed, then it follows that bills of exchange are always redeemed with bills of exchange ; which is absurd and impossible. With fallacies of this sort, generally taken as true without argument, how is it possible to form any definite opinion of the active cause which deranges production and distribution, by excessive and disproportioned circulation, causing an ascending scale of prices, locking up products in overstock, and so bringing on commercial, banking, and industrial crises? That bank credit is radically different from all other credit can also be plainly demonstrated otherwise. Suppose banks to discount no paper whatever, and a banker's business, instead of loaning money, to be a loaning of his personal credit in the shape of indorsement or guaranty of the paper of producers, both manufacturers and merchants ; the latter belonging undoubtedly to that class, while they are at the same time distributors : How far will this guaranty go towards paying wages, or buying raw material? Is any conventional value attached to such a guaranty, and would it pay wages? By no means. No overstock could be created, therefore, and no banking, commercial, and industrial crises brought about, by the aid of such guar-

anties. But *could* general conventional value be given to such guaranties, so as to make them pass as money, pay wages and buy raw material? It certainly might, by common consent, evidenced by common practice; and then if the paper were divided in suitable amounts, it would be used precisely as bank-notes are now. It would be no longer mercantile credit alone, but mercantile credit backed by banker's credit, or, more properly, banker's credit protected by mercantile credit. But would the merchants be called upon to redeem such paper? Certainly not, except in case of the banker's failure. There would be no possibility of redemption by the merchants. Money must always be redeemed in some mode; the exchanges would still be effected through the banks, and if not altogether, then, so far as a few merchants might, if by any possibility they could mutually clear, the principle would be the same. Therefore it is a great fallacy to call bank credit the equivalent of ordinary mercantile credit, because labor and material could not be paid for by credit; circulation could not, by credit, be increased beyond its natural limits, through the distribution of commodities, nor general prices placed in the ascending scale by means of increased circulation. Hence there could, by means of credit alone, without money, be no banking and commercial crises.

Logically and historically, therefore, I repeat, the units of bank credit are not money, while at the same time they do not and cannot take the place of money as *mere credits*. They are powers to put in circulation the metal in reserve; metal belonging to the common fund being present in abundant quantity to answer all ordinary calls. It is *absolutely true*, nevertheless, that banking has, by its development, practically demonstrated the truth of the proposition that the units of bank credit can be used as money without any reserve, either of metal or paper, because all money of every kind necessarily, by the very fact of its adoption and use, develops into a series of units limited in number by the material of which they are made, or, in the case of bank-notes and units of bank credit, by the commodities they

cause to be produced ; and all such units are money quite as absolutely as the units of metal, although they possess a smaller field of circulation. But such units never can be used safely alone without being limited by a duly proportioned reserve. There would always be an ascending followed by a descending scale of prices, precisely as now in England and the United States. The range would be higher and lower in both countries if gold were eliminated entirely from banking and redemption reserves, but the cause which creates and brings into existence a rising and falling scale of prices would be the same in both cases. The true object of a reserve is to put, not an indefinite, but a well defined limit to the expenditure of labor for purposes other than the production of absolute necessities ; to keep a due proportion of labor at and near the base line of production. An excess of laborers in towns, cities, and villages is thus prevented, as far as it can be, by forcing more of them to remain at the plow in order to earn their bread. The production of relative necessities is thus limited by limiting bank loans. As shown elsewhere, a fixed ratio of reserve to liabilities is requisite to effect this object.

What purpose, then, does a metallic reserve answer in England and the United States ? I postpone the answer to this question until I have answered another. What causes the rise and fall of prices even under the metallic circulation of England with a large metallic reserve ? One thing is certain, that the rise and fall are subjective and not objective ; they have no causative power ; they are, on the other hand, the effects of some grand cause, and that they are merely effects, appears clearly from the fact that there is no change in the power of the banks, abstractly considered, to cause money to be put in circulation after a crisis appears. There is, nevertheless, the same amount of money to be had when prices are falling as when they are rising. A power greater than money causes the ascending scale as well as the descending one ; that power is Productive Power on a general scale ; it is no trifling cause which produces such gigantic results. This grand cause I have examined at large in other chapters, and can

only briefly refer to it now. There can be no excess of the necessities of life ; such excess is impossible, but there can be a relative and temporary excess of the products of labor in other directions ; improved machinery tends to increase the excess, and tariffs and taxes help to diminish the power to consume relative necessities on the part of the producers of absolute necessities, because the consumers of tariffs and taxes consume more in proportion of absolute than of relative necessities. This is all the truth there is in the assertion that taxes fall chiefly on land.

It would be attributing gigantic results to causes wholly incapable of producing them to affirm that improved machinery, and tariffs and taxes, cause overstock on the part of the relative necessities of life, sufficient to bring on a commercial crisis. It is not true *absolutely* that there can be no overproduction ; it is *relatively* true only. It is *absolutely* true that there can be no excess of the absolute necessities of life, and *therefore* it follows that on the average there can be no excess of relative necessities. In the operation of this law it appears that although the energy of production be applied in the fullest manner possible in every direction, there will still be a comparatively steady result in respect to absolute necessities, that kind of production being always abreast of but not in advance of population, while production of the other sort tends to move in advance of production of absolute necessities, as well as population, in the most advanced nations. I have shown that raw material and labor could not be paid for by credit only ; but suppose that they could ; an equilibrium of all production would nevertheless be fairly maintained by credit for these conclusive reasons : The very moment an overstock began to take place in any kind of production, whereby the exchanges were likely to be blocked, that very moment the producer would be compelled to stop. The co-factors, depreciation of overstock, loss by payment of interest, rise of necessities of life, and inability to borrow purchasing power of any kind, would soon bring the exchanges to par.

Price has no existence aside from the use of units of val-

uation or purchasing power, passed from buyer to seller, and without such units, inasmuch as there can be no price, there can be no rising or falling scale of prices; and without a rising scale of prices, by means of an expanding circulation, there can be no loss from overstock, and hence no overstock. There are three kinds of circulation: 1st. That of the comparatively primitive and simple community, where but little money is borrowed, and that which is, is borrowed merely to anticipate future income, and supply immediate wants; it is not borrowed to expend in production or speculative undertakings, in expectation of profit, and hence in such a community usury is looked upon with abhorrence. 2d. That additional circulation of an advanced and highly civilized country, like France for instance, where capital and what always accompanies it, money, have largely increased, and loans of money are made to producers of all kinds, merchants included; but there is no artificial stimulus, or but comparatively little at least, given to the circulation of money, and hence production by the aid of banks. This additional circulation, however, created by loans from individuals, may be very properly called, on its money side, expansion of circulation, growing out of the development and increased civilization of mankind. Will such an expansion of circulation, and therefore of production, give rise to a derangement or blocking of the exchanges, by creating an excess of the products of labor, relative only to civilized wants?

By no means, certainly to no great extent, if the money units are metallic, because all the units of money in the hands of capitalists, waiting to be loaned, have come back to them in consequence of a like amount of commodities which have been actually exchanged for consumption, and because they cannot, without the aid of banks, be put in circulation to pay for labor and material, as a general rule, often enough to produce an industrial and commercial crisis. A sufficient stock undoubtedly will be created by loaning them as fast as called for, to supply consumption through commerce; there will be more or less advance of prices, and afterwards fall of prices, according to the state of demand

and supply ; because with any kind of money or conventional value this is unavoidable, but the ratio of variation will be very moderate ; there can hardly be a commercial crisis, but should one occur, it must arise from exceptional and not permanent causes. The expansion of circulation through loans, if not met and counteracted by an equal contraction of circulation by payment of loans, undoubtedly creates a rising scale of prices, and leads to an undue expansion of production in one or more quarters and rise of prices ; but the sale of what is produced takes place within short periods, and thus enables loans to be paid, and the expansion of circulation caused by money paid out for labor and material, resulting in a product not yet consumed, is met within safe periods by a sale and consumption of the product and payment of the loans. The contraction of production by consumption accompanies or precedes a corresponding contraction of circulation. English banks do not deal in anything like mercantile credit ; for a commercial and therefore a banking crisis is impossible through the use of such credit. If there is any proposition in economical science which can be demonstrated with a certainty almost mathematical this is one. It is equally certain that metallic money, left to itself without banks, furnishes, through the co-factors before mentioned, the same protection against want of harmony in production with mercantile credit itself, could that be used instead of money, in highly advanced communities. Prices, on the other hand, ascend and descend regularly ; expand and contract under the loans of deposit and discount banks, where metallic money is in use as in England, and commercial and banking crises follow. I will now answer the question : What purpose does a metallic reserve, as actually kept, answer in England and the United States ? It limits the range of variation in prices caused by bank loans, even when its ratio to loans is in a state of constant variation upward or downward, although steady prices can only be obtained by a ratio ranging within short periods, and to a slight extent only. Higher prices are attained with inconvertible than with convertible notes, as witness deposits in the Bank of

England between 1797 and 1816, compared with preceding and succeeding periods, but the subsequent contraction of loans, even before convertibility is reached, where a crisis has taken place in production, makes the ratio of variation the same as under a convertible or even a metallic currency. General results are the same, whether the currency be convertible or inconvertible; there is the same rise of prices, productive of the same mistakes on the part of producers, and there is afterwards the same fall; for take now the third kind of circulation as we actually find it in England with a full development of the only machinery capable of artificially increasing the amount of circulation of metallic money, not only beyond its natural limits in those cases where no loans are made for the purposes of production in a primitive community, but even much beyond the limits possible by means of ordinary loans for the purposes of production, as in France, without banks. When the ascending scale of bank loans begins, and increases above average, and prices rise, to what use are the loans applied? Not to consume certainly, but to produce. Banks do not loan to mere consumers, or to adventurers who dig holes in the ground or erect pyramids, but to producers of some kind. Suppose a loan made to a wholesale merchant in domestic trade; he is both a producer and distributor, for he produces value by distributing. But there is a progressive rise in the ascending scale of prices; it continues until a crisis takes place, and the ascent in the scale of prices changes to a descent. What is the precise effect of that rise? To speak with rigorous accuracy it has but one, but that a most potent effect. It masks the real depreciation of the unsold products of labor (which are not sold to pay loans, because they cannot be) under the guise of apparent appreciation, and therefore profit. A merchant buys, and the products of labor are apparently rising on his hands; he buys by the aid of a bank loan, and the loan results in an increase of bank debt, or a loss of bank reserve by the difference between the cost of the labor and materials, represented by a loan to the manufacturer, and the cost and profit paid to the manufacturer by the

same merchant; and so as to all other producers, whether they stand in the first rank or in a rank intermediate between the first producer and consumer. It is all founded on credit, apparently, and a kind of credit whose units circulate as money. Money itself being simply, *when actually used*, but a series of units, these credit units are the same in effect as any other units. The contraction of this circulation, corresponding to and resulting from consumption, takes place in its first act by transfers of bank credit through clearing; and is consummated by the contraction of bank debt or the increase of bank reserve which takes place, for the most part, afterwards, at another clearing, by those to whose credit the transfers are made; so that every clearing causes a certain amount of contraction to take place corresponding to the contraction of circulation which takes place by the payment of coin to a lender in France; and the contraction of circulation in this case, whether the units are composed of credits canceled or coin deposited, is accompanied by a corresponding contraction in the volume of commodities, whose sale and consumption enable this contraction of circulation to take place. It is *absolutely* true, however, that all loans and all redemptions are made out of reserve only, because by every loan is the ratio of reserve to debt diminished.¹ By the abandonment of all theories, and by rigorously adhering to the premises in which lies no lurking fallacy, viz, that all money is conventional only, and therefore consists of a series of units, whether those units be evidenced by weight units of metal, notes, or credits, it can be shown that prices depend upon production, consumption, and circulation. The demonstration, from the admitted premises, that all circulation is the use of a series of units of conventional value, is verified by the practical demonstration of the same fact by the aid of clearing; because while there is always an abundance of gold in the consolidated reserve to pay every check-holder, clearing

¹ Whenever it is affirmed in this chapter, or elsewhere in this work, that units of bank debt or credit are circulated or paid, it is affirmed hypothetically with the intention of showing that even upon the hypothesis, without a fixed ratio of reserve in silver or gold, there is no metallic limitation of loans by the reserve — such a limitation being in true science its most important office.

is rendered possible only by the fact that the check-holders would, were they to withdraw gold, immediately redeposit in the consolidated fund. Hence the excessive and unlimited circulation of gold units themselves is precisely equivalent to the circulation of a like amount of units of bank credit. *In the ratio of price*, both are mere units and nothing more. Stability of prices, therefore, does not depend at all upon whether the buyer pays with gold coin, the material of which only, and not the coin in its character of money, is a commodity, or with units of bank-notes or bank credits, or — were it an actual fact that they are so used — commercial-credit units.

One more important fact or law, whichever we choose to call it, if thoroughly understood and pondered, will enable one to comprehend the immense forces at work, in bringing on commercial crises.

If we suppose the existence of a community, all of whose members are in possession of undoubted credit, and whose commerce lies entirely within itself, each member upon purchasing a commodity could give *his own notes*, payable in notes issued by other members, or in commodities, at the option of the holder. If these notes by general consent evidenced by common usage were never issued by any member in excess of commodities shortly thereafter produced by himself, or purchased with like notes issued by others, no production taking place in excess of the wants of the community, prices under this paper currency would be steady. Prices would be steady because the units of money circulated could not be in excess of the units of commodities. The contraction of commodities taking place by the purchase of one commodity for consumption would be soon met by a corresponding expansion of commodities by means of the purchaser's production, and which another purchaser is waiting for; and the expansion of circulation which he caused to take place, by paying out his own notes, made and issued by himself, in exchange for the commodity he bought and consumed, would be soon met and balanced by a corresponding contraction of circulation through a like number of units of notes paid him

by another member of the community for another commodity which he had produced since his purchase. To take the place of the commodity he purchased and consumed he would produce and sell another of a like value, and so production and consumption would balance.¹ He would cause an expansion of circulation by issuing his own notes, and he would cause a corresponding contraction of circulation by taking back an equal number of units in notes; it may be the notes issued by himself; it may be notes issued by others. In either case expansion of circulation is balanced by a corresponding contraction, because the receipt of the units thus paid him, whether his own issue or another's, retires his former issue, and they, whether his own or another's, can be used only on the next similar occasion with like effect; and thus there is no expansion of circulation without a corresponding contraction occurring soon afterwards. Hence, by the most rigorous demonstration, it appears that paper units will maintain an equilibrium or steadiness of prices so long as every member of the community can sell what he produces within short periods. It further appears that high and low prices come from the production of those things which will not sell; because, could they be, and were they sold, the sales would produce a corresponding contraction of circulation. Moreover, the phenomena of rising and falling, or high and low prices, accompany commercial crises; therefore it is a fair inference, or rather it furnishes demonstration in fact, that such crises come from the impossibility of realizing upon some of the products of labor; and inasmuch as there is a banking phase to every crisis, the production whose products will not sell must have come from bank loans. But of this I can furnish actual certainty by demonstration. Why do general prices rise?

¹ Expansion of circulation by bank loans occurs by payments for labor and raw material, and therefore for production in advance of consumption; the latter must come in due time in order to balance the former. In the case supposed in the text no expansion of circulation occurs until production has actually taken place, but the expansion nevertheless continues until it is balanced by means of an equal amount of consumption following an equal amount of production.

Not from personal credit, as I have already shown, but from increased expansion of circulation which is not balanced by a corresponding contraction.

In the case supposed, no money was paid out and not a note was issued until a commodity was not only produced but actually sold for consumption. Suppose the community to have progressed so far as to have manufacturing establishments; suppose the manufacturers to pay for labor and material with their own notes, and the merchants who buy of them to do the same. Will prices remain steady as before, or will there be a rising scale to be followed, as it always is, by a falling one? That will depend upon the existence or non-existence of one important fact.

If production and consumption balance, then the expansion and contraction of circulation will balance, and for the same reason as before. If, however, production is ahead and not abreast of consumption, there will be a rising scale of prices; the money paid out for labor and materials will only come back to the manufacturers or merchants in proportion to what they can sell. Meantime the money which they have paid out in the shape of their own notes, for that portion of the products of labor and raw material which will not sell, has gone into general circulation, and has thus necessarily increased the prices of all things consumed. The volume of the things consumed may be considerably expanded, but the units of money will be expanded much more. If the volume of production by manufacturers is twenty-five per cent. in advance of consumption, precisely to that extent is the expansion of circulation in advance of contraction. Every unit of the commodities thus expanded by twenty-five per cent. has, by expanding circulation, advanced general prices largely, although not necessarily to the extent of twenty-five per cent. While the scale of production was ascending that of prices was also ascending. Moreover, this production did not include the absolute necessities of life, but only those things relating to civilization and progress. Again, the rising and falling scale of prices did not, in this particular case, result from the fact that the units of money were evidenced by

paper promises instead of metallic cylinders of gold or silver; it resulted entirely from the fact that an overproduction of relative as compared with absolute necessities being possible by means of money in shape of notes, the intrinsic qualities of the money, whether paper or metal, were not essential. The material inquiry was, Is it not easier to issue units of paper money to pay for labor and raw material to produce in advance of consumption than to obtain by sales units of metal in the absence of banks? For, under deposit and discount banking, even with a metallic currency, loans can be obtained as readily as with a currency of bank-notes. It was an expansion, in the case supposed, of circulation for all the manufacturers' production which took place, and a contraction only for the consumption which took place: the expansion of *possible* circulation, not balanced, was therefore precisely equal to the difference between production and consumption. Hence, where money is only loaned to producers, as is unquestionably the case, for the most part, in England and elsewhere, the fact that gold is loaned, either actually or representatively, to pay for labor instead of bank-notes, whether convertible or not, does not, by reason of the gold, maintain steady prices; nor, on the other hand, does it cause unsteady, rising, or falling prices; the unsteadiness is produced by a cause paramount to the kind of money-unit employed, and which has been already described. But in England bank credits determine the amount of metallic units in circulation, instead of the latter determining the former. Instead, therefore, of metallic units controlling the volume of credit units, the latter control the former, and in this manner the design of the Bank Act has failed. Is the unit of gold, then, under deposit and discount banking, any better; has it any more potency in maintaining steady prices than the unit of bank credit or bank-notes, the latter two being equivalents? It must be confessed that it has not, in England, under deposit and discount banking.

THE BANK ACT OF 1844 HAS FAILED; AND WHY? IS
THERE A REMEDY?

The paramount advantage of a circulation consisting of gold, or gold and silver units, is, confessedly, steadiness or uniformity of prices. Safety to the holder is undoubtedly an object gained to a considerable extent by gold and silver coin, but in England it has been practically demonstrated that the notes of the Bank of England are deemed amply safe, because in the very midst of a banking panic nothing better is asked. Therefore I affirm that in England steadiness is the object sought by the use of metallic circulation outside of banks. But it is very certain that the object has not been attained; for, beyond all question, there has been a constant succession of rising after falling and falling after rising prices since the Act of 1844 was passed. This variation in prices arose from ill-balanced production and from no other cause. I proceed to demonstrate this proposition in another form. In the community before mentioned, after the manufacturers began to pay out their own notes for labor and raw material these notes were money, because they had, by the consent and practice of the community, conventional value in exchange—in other words, purchasing and paying power. Their circulation had the same effect precisely in the denominator of the ratio of price as a like amount of circulation accomplished by the use of a like number of units of gold. Now in order to understand this reasoning clearly, it must first not only be demonstrated that money in the shape of gold coin and in its character of money is not a commodity in the proper meaning of that word, but the truth of the demonstration must be clearly perceived, and I therefore proceed to prove the proposition again in another form. In the first place the development of banking in England has, as already shown, practically proved it. Gold or bank-notes representing a like amount of gold are always on hand to answer every call by check; if not paid out it is because the gold would immediately be redeposited by or for the check-holder, in the same common reserve, and if by

common consent all the gold were removed from the common reserve, and units of bank credit circulated through checks, the result would be forever and always the same, as to the ratio of variation in prices. Therefore the units of bank credit, as counted in bank credit, are precisely the same as the units of gold coin in the reserve counted in gold coin : in the ratio of price each counts out mere units and nothing more, whether the count of units of valuing, purchasing, and paying power is accomplished by gold or credit. By the manner of conducting banking in England, then, it is practically demonstrated that units of credit control the units of gold. But to make it still plainer, perhaps, to some minds, that gold coin *in its character of money* is not a commodity, suppose all banks in France out of the way, the circulation wholly metallic, and the consolidation in a bank (of deposit simply) of all the money reserves of every business man and capitalist in Paris. Suppose the fund to be one thousand millions of francs. Twenty-five per cent. or less of this amount would suffice to answer the actual demands of depositors, and the rest might be permanently locked up. Could it be used by any but the owners to accomplish their own and only their own circulation? Doubtless it could, in the way of loans, and the economy of metal required to pay depositors would be the same as an increase of metal to the amount economized. Now if gold and silver coin were really commodities this could never take place. The amount economized being equivalent to the production of a like amount of metal, a part of the metal economized or an equal amount in bullion will be manufactured and another part retained as coin, so as to maintain the same ratios between metal coined and metal not coined as would result had the amount economized been added by mining to the world's stock instead of being economized. In other words, the number of units of weight in coin determines the units of weight that are used as a commodity. The number of units of valuing, purchasing, and paying power which all the coin in the world if counted would sum up determines the quantity of metal manufactured, the metal economized being equivalent to so

much produced. Once more : suppose all banks in England to have a reserve of thirty-three and one third per cent. For every one thousand pounds in money deposited and circulated there is one third of that amount in gold in the reserve. Clearing would take place precisely as now, and might take place if the banks were in possession of twice the amount of gold. But credit or debt units alone *appear*, and the result is the same as if the gold coin were in all cases actually paid out. The real difference between this kind of banking and banking as it actually is in England consists not in the kind of units used ; gold is on hand in sufficient amounts to answer actual calls, *in both cases* ; but in the first case the amount and number of credit units are controlled by the number of gold units behind them ; in the actual case, as we find it, the number of gold units is entirely controlled by the number of credit units.

In the community above supposed, when each producer issued his own notes as money, and the twenty-five per cent. surplus of a certain kind of production took place, a remedy more or less perfect would have been afforded by requiring redemptions in gold or silver, as with *banks of issue*. In that case, as with banks of issue, notes once issued could not, before their return to the issuer, be circulated a second time ; if used in production, as they undoubtedly for the most part would be, they could be used but once ; and meanwhile, if the producer could not sell because of an overstock or excess, the issuer would be called upon to redeem, and, on the whole, production would be kept within proper volume by keeping circulation within proper volume. With deposit and discount banks, however, although they keep their reserve in gold, this is impossible, because there is no limit to possible circulation by their agency short of a commercial crisis when the volume of bank credits determines the amount of metallic money circulated, instead of the latter determining the former. A rising scale of loans shows a rising scale of production *rendered possible* by a rising scale of prices. All the labor is paid for by gold, all the raw material by gold also, which is in the consolidated

reserve behind bank credits. But this gold is the precise equivalent of bank credit, — nothing more or less, — because the result would be the same if the reserve were out of the way ; and two things which are equal to the same thing are equal to each other. Hence it may be called (this circulation of gold), what it in fact is, the equivalent of units of bank credit, and nothing else. But this same credit controls the metallic circulation throughout the kingdom ; therefore the circulation of gold throughout the kingdom is the precise equivalent of a like amount of bank credit, or, what is the same thing, paper units. But a rising scale of bank loans means, as already demonstrated, a rising scale of prices proportioned to the rising scale of loans, and both in the order named lead to an equivalent amount of unsold productions. What renders this overstock possible ? Nothing but rising prices, which import simply that the expansion of circulation, unbalanced by an equivalent contraction, has so advanced in that part, as well as all other parts of the great field of production, — the prices of things sold for actual consumption to consumers, to merchants, and to speculative buyers, whatever the production may be, — that there is an apparent profit in all the stock ; and an actual profit so far as sales for consumption are made or loans are actually repaid. The expansion of circulation through loans, although the subjective result of the paramount cause, which is actual ability for a time on the part of the producers in this line to go in advance of the producers of absolute necessities at the base line, becomes of itself a working cause, operating to conceal real depreciation, in the guise of apparent appreciation, through the rising scale of prices caused by the rising scale of bank loans. But is there no remedy ? Is the popular opinion that metallic money is the safest and steadiest of all money a delusion, because the opinion that metallic money is a commodity is a delusion ? By no means. The popular opinion is substantially sound ; but upon the baseless theory, in short the fallacy, that any money can be a commodity, it is utterly impossible to demonstrate why, and wherein, and under what conditions, the popular opinion

is sound. The grand object is stability of prices. It has been demonstrated already, that if production and consumption balance, the expansion and contraction of circulation balance; and for that reason, and for that only, prices continue steady. It has been further demonstrated that the use of metallic money, where the larger (wholesale) transactions of commerce are accomplished by the circulation of metal in a consolidated fund with uncontrolled power of discount in the managers, gives no guaranty whatever of steadiness, because credits are thus made to control the metal, instead of the metal controlling the credits. The remedy lies, therefore, in solving this problem: How to make metal control bank credits. It is manifest that there is but one way of solving the problem, and that is by keeping at all times a definite minimum ratio of reserve to liabilities in all banks, whether each bank keep its own share in the consolidated reserve belonging to depositors in its own vaults, or whether all reserves be kept in the Bank of England. It is easy to lay down the rule, but to carry it into effect—*hic labor, hoc opus est*. Banks of issue, having no deposit, if well and honestly worked, necessarily keep a definite minimum ratio of reserve by their own working, because all redemptions must be made out of the redemption reserve, and that reserve must be supplied from metallic circulation *outside*. As consumption of the goods produced by means of the bank-notes, loaned and paid out for labor and materials, progresses, the notes, or metal in their absence, will be returned to the banks in payment of loans, and expansion will be balanced by contraction. The very moment production is unduly stimulated by loans, that moment the banks are called upon to pay out from the reserve more metal than their receipts, in the shape of metal and their notes, and they are thus compelled in the end to contract loans. They are compelled, because they have no consolidated reserve constantly replenished by redeposit, out of which to redeem at all times and under all circumstances. In England such a redemption of bank-notes would not be required were deposit and discount banking abolished, because the circulation

is nearly all metallic, actually or representatively ; but the principle involved is the same, because bank-credit and bank-note units are, as I have already demonstrated, one and the same, or rather, it is a necessary corollary from the demonstration made.

Why does metallic money, left to itself, give the safest and steadiest circulation ? Because the ratio of annual production to the total mass, however great or however small, has never, on the whole, seriously advanced beyond the progress of commerce, that is to say, of distribution and consumption. Adam Smith was substantially right in saying that bank-notes (deposit had not developed in his time beyond a germ), always convertible, could not exceed in volume the gold and silver whose place they took ; but he was wrong in not affirming that the volume of money will be actually increased throughout the whole commercial world by the exact volume of the notes above reserve. The effect of a paper or credit circulation regulated exactly in such a manner by metal that production cannot be far in excess of consumption, because by reason of the steadiness of prices overproduction would soon demonstrate to the eyes of the producer positive loss instead of apparent profit, is substantially the same as one of metal.

The metal, in such a case, must actually circulate ; otherwise it cannot regulate the circulation of the units of paper or credit. A circulation like that of France is steady in the highest degree ; a circulation consisting largely of units of bank credit can be made steady to a high degree, provided the plan of a fixed minimum metallic reserve be admitted, and provided further it is practicable to enforce it.

All this appears clear enough from the premises, but utterly incomprehensible upon the false theory that true money is a commodity. Everything is money that people can and do use as money.

If money were a commodity, there is no conceivable way of using it except by exchanging it as other commodities are exchanged for each other, and in that case we should be in the condition of savages ; what is called double barter, if such

a process be conceivable, would be putting us in a condition worse than that of savages.

But the false theory, so difficult to overcome and perhaps in some minds impossible to overcome, that gold coin, when used as money, is also used as a commodity, as already shown, leads to the theory equally false, that the units of bank credit, if circulated by the instrumentality of checks, are still like units of ordinary credit, and circulate as bills of exchange or promissory notes circulate. This proposition, when carefully examined, is just as false and incomprehensible as the proposition that money when circulated in the shape of gold is a commodity. If the circulation of gold can be carried so far that the units circulated by it are only equal in power and effect to units of bank credit in keeping prices steady, because, as already demonstrated, all money-units are in the denominator of the ratio of price mere units and nothing more, — the heavier the units of metal, exactly so much less the whole number, — it follows incontestably that credit, *eo nomine*, and by that designation, does not circulate. It might be said with precisely as much meaning, and with vastly more truth, that confidence, instead of credit, circulates, because although they are equivalent words, the word confidence would at once demonstrate to the practical as well as the scientific mind the utter impossibility, because inconceivability, of a circulation of credit. But there is a germ of truth also, even in the proposition that credit circulates; because credit or confidence is the foundation for the use of units of credit, whether furnished by individuals or banks. Bills of exchange and promissory notes might undoubtedly be used as money as already shown, provided the makers and indorsers were known and had ample credit, and provided, further, the bills and notes could be and were divided in suitable sums; and last and more than all, provided the proper set-offs could be made by payments following clearings. Clearings transfer from the last or retail distributors to wholesale distributors units of bank credits belonging to the former, and created by the deposit of money made by the former, consisting undoubtedly in part of like

credits transferred to them by check from consumers, but very largely of gold and silver and bank-notes. The set-off of bank credits thus transferred to the wholesale distributor against the debt he owes one or more banks, and evidenced by his note or bill, takes place by means of a check going into a clearing and drawn by himself, the proper function of which check is to cause the set-off to take place. Bank credit is thus extinguished to the amount of the check, which is equal to the amount of the bill or note. The expansion of circulation arising originally from the loan, which was the foundation of the bill or note, and which was the foundation of an equal expansion of production, is now balanced exactly by an equal contraction of circulation, or, as it may be put, of an exactly equivalent power to put money in circulation by means of bank credit. Precisely to the same extent production is balanced by consumption. It is consumption, in short, which enables circulation, or the power to put money in circulation, to be contracted. The next item in the clearing is a check given by a wholesale distributor to a manufacturer or his agent or factor, transferring to him say one thousand pounds in payment for a bill of domestic goods of like amount, which are rising in price nominally in consequence of increasing overstock, and are themselves a part of the overstock. The manufacturer or his agent or factor, as the case may be, already owes one of the banks a much larger amount, and in fact he owes for all the overstock in his hands; and his debt is represented in part by bank credits now held by other parties, which have by their creation *relatively* decreased the total of banking reserve, and in part by gold, silver, and notes taken out of reserve on his loans to pay for labor, and which have thus *absolutely* decreased reserve. The absolute and the relative decrease is all one and the same thing, tending to the same result, and distinguished now only for the purpose of showing with rigorous accuracy how each arose. The relative decrease of bank reserve came *apparently* by creating and loaning bank credit to pay for raw material, but the absolute decrease came by the withdrawal of coin and notes to pay for

labor. The wholesale distributor, before giving his check, borrows of a bank one thousand pounds to pay the manufacturer, which is placed, less discount, to his credit; and he, by check, transfers it to the manufacturer or his agent, who by his check cancels a like amount of bank credit. Bank credit is thus, by means of the loan created to the extent of one thousand pounds and by check, immediately transferred and then canceled to a like amount. But the transaction amounts to nothing in respect to deposits in this case because the goods are not sold to consumers, nor for cash not borrowed. A very important result follows. By means of apparently rising prices the merchant, without any fault on his part, is enticed into borrowing; the bank, without any fault on the part of its managers, into loaning; and the producer into more manufacturing. Other items in the clearing may be checks growing out of speculations in stocks, which are entirely distinct from the other transactions, and have a history and a beginning and ending by themselves. Nevertheless, a properly regulated reserve would control these, as well as all other commercial or speculative transactions.

Doubtless eras of speculative transactions may and do arise, without the aid of banks, by means of speculative demand arising from extraordinary causes, both in war and peace; but the ever-present and ever-acting causes in highly commercial countries are those named, and they are increasing, and are likely to still further increase, by the extension of banks. No practical man, nevertheless, will set his face against deposit and discount banks, or urge their abolition. The unequalled advantages afforded by them will not allow Englishmen or Americans to agitate the public mind for their abandonment. Regulation, but not destruction, is the word. To abolish banking in England and the United States would disturb the ratio of gold distribution, and perhaps make it necessary to remonetize silver. It is a monstrous fallacy to assert that bank credit is like mercantile credit. The area of commerce included within the limits affected by London clearings is too vast, the transactions too complicated, and the conveniences for setting off or balancing of

the expansion of circulation by its contraction when consumption takes place too uncertain, for anything resembling mercantile credit to answer the purpose, as affirmed by English writers. Mercantile credit will not circulate; bank-credit in the shape of units can. Mercantile credit in units might circulate, undoubtedly, within a narrow field, as I have already shown, but it does not in England, nor does it in the United States. Foreign bills of exchange are a temporary contrivance; they are all discounted, and the credits arising extinguished through consumption, by means of banks. All credit helps to raise prices, undoubtedly, but the primary and paramount causes are those before mentioned. The fact that circulation of gold by means of units of bank credits having behind them no fixed minimum reserve of metal, and a circulation of credit units without gold, are substantially one and the same thing, is so important that it has led me to some repetition. A minimum reserve is one that never goes below a fixed ratio at starting.

THE ENGLISH BANKING CRISIS OF 1866, AND THE ENGLISH COMMERCIAL, INDUSTRIAL, AND BANKING CRISIS OF 1874-75.

The truth of the propositions demonstrated is practically shown by the English crisis of 1866, and the crisis of 1874-75, still in operation in 1877.

Every crisis has a commercial, industrial, and banking side, but the crisis of 1866 more particularly affected the banks. The grand cause in operation was undoubtedly the progress of production to satisfy minor, secondary, or relative wants in excess of absolute wants, and consequently of population. Money had been loaned, as usual, for the purposes of production, and speculators, as well as merchants, took the overstock to a large extent from first and sometimes second hands to invest abroad. Cotton and cotton fabrics had fallen in price, and a large part of the investments had cost too much, and some were comparatively unproductive. The fall of cotton in price and the ill success of the attempts to increase cotton supply in the East consti-

tuted an important element in the crisis. It happened, as in every crisis, that the investments were largely unproductive, and the loss came to a great extent from fall in prices, because the investments had been made under the rising scale, when everybody was investing, and the investors were called upon to realize under the falling scale of prices, when everybody wanted to sell. The banking phase of the crisis of 1866 was thus more prominent in its direct apparent effects in England than either the commercial or industrial phase. Had the adventurers in cotton planting been able to furnish cotton at the rates of the time in abundance, the crisis would have been less severe; but, on the whole, the same causes were at work in this crisis as in all others. Rising prices cannot unduly stimulate the production of the absolute necessities of life, simply because that kind of production cannot be in excess, but other production can be relatively in excess. It never can be in excess, however, to a sufficient extent to bring on a crisis like that of 1866 without the aid of a rising scale of prices. Suppose prices had been steady, as under the metallic circulation of France; the loss in overstock by falling prices would have been apparent as the overstock increased, and it never could have been carried so far under steady prices as to produce serious embarrassment, because the circulation of money could not be increased in payment for labor and raw material so as to make any serious amount of overstock. The effect of a steady circulation is to force sales for cash long before a crisis can take place, and those who buy, even on speculation, buying as they do at prices which can be realized again, can suffer little loss. The crisis of 1874-75 in England was more particularly commercial and industrial than that of 1866. Nevertheless, it had a banking as well as commercial and industrial side, although the overstock extended more or less to all departments of industry outside of agriculture in England.

CAUSES OF THE FAILURE OF THE BANK ACT OF 1844,
BRIEFLY STATED.

A metallic circulation, unaided by banks, will maintain steady prices, notwithstanding the tendency in advanced nations like England and the United States, increased by improvements in machinery and other additions to productive power, to produce the relative in excess of the absolute necessities of life ; and steady prices will prevent the tendency to unbalanced production from going so far as to produce a serious commercial crisis, even by the aid of personal credit, because, while general prices remain steady, any important increase of overstock would reduce the price at which articles of the kind in overstock could be sold relatively below the range of general prices, and demonstrate loss then and there, instead of postponing the demonstration to the time of a commercial crisis by means of a rising instead of a falling scale of prices, which rising scale always accompanies overproduction. Any metal sufficient in quantity to distribute its units of conventional value over the whole commercial world in the tracks of commerce, will carry definite ratios of quantity by weight into coin and into manufacture, and while this natural distribution is not materially disturbed, no material excess of circulation, and therefore of production, can occur.

In the second place, I have demonstrated that when production and consumption balance, the expansion and contraction of circulation balance, and prices are steady ; therefore, under such conditions, a paper or credit circulation, consisting of units circulated by means of banks, would maintain steady prices. But inasmuch as that kind of production which grows out of advancing civilization, and does not embrace the absolute necessities of life, tends to advance in excess of the latter, paper or credit units paid out for labor and raw material having no such natural limitation as those of metal, and therefore furnishing no natural limitation to possible circulation, cause a rising instead of falling scale of

prices. The tendency to overstock in the direction named is not only made possible, but is actually carried into effect by the use of such units, because the depreciation naturally following large overstock is converted into apparent appreciation by a rising scale of prices while the overstock is being produced.

In the third place, paper and credit units whose circulation is controlled by a definite ratio of metallic units approximate to the steadiness of a metallic circulation, because the circulation of the former is thus prevented from being carried to such excess as to cause overproduction and a rising scale of prices. The metallic units regulating the credit units rather than the latter the former, expansion and contraction balance, although not as perfectly as under an exclusively metallic circulation.

An artificial derangement of the distribution of the metal by war and conquest, as in the times of the Roman empire, and as of late in Europe, or by other means, may temporarily derange the stability of the purchasing power of coin.

In the fourth place, a currency consisting entirely, or almost entirely, of gold, circulated actually or representatively, as in England under the Bank Act of 1844, affords no steadiness where units of credit control those of metal. The natural steadiness of a metallic circulation is lost by the artificial contrivance of banking, unless it is restored by an equally artificial arrangement of reserve, there being no limit as yet found to possible circulation out of a consolidated metallic reserve in England, for the same reason that none has yet been found to the circulation out of a paper reserve, short of a commercial crisis. Money is paid out in the shape of units of gold and silver; units of gold on deposit in the issue department of the Bank of England represented and covered by an exactly equal issue of vouchers to the deposit of the gold in the shape of bank-notes; units of bank-notes issued for a like amount of government debt belonging to the bank; and units of bank credit convertible on demand into the gold of the consolidated reserve in the shape of the

vouchers before mentioned, and so at any time into gold itself, for the absolute necessities of life in the shape of wheat, or relative necessities in the shape of iron for instance, after it has been produced and is ready for market. These payment are effected, undoubtedly, to a large extent by the aid of bank loans, and thus cause an expansion of circulation; but the consumption of nearly the whole produce of wheat within the year produces a corresponding contraction; the non-consumption of the iron maintains expansion. Loans everywhere and under all circumstances produce an expansion. Gold, in its distribution throughout the commercial world (so far as not artificially prevented), by following commerce, also follows capital, which is the first element of productive power. All loans are to some extent a disturbance of this distribution, and therefore, to maintain the exchanges of commodities in harmony, loans must, within comparatively short periods, be repaid by means of actual sales to consumers, and not by making a loan elsewhere. All this happens with a metallic currency without banks of deposit and discount, but not with them. What an English bank deals in, therefore, if a brief definition be demanded, is gold and silver coin, gold vouchers, and bank-notes, placed for the most part in a consolidated fund belonging in definite portions to all the banks; which coin, vouchers, and notes are not actually delivered in most cases, because were they delivered they would be immediately redeposited in the consolidated fund. But whether actually delivered or not, they are equivalent only to a like amount of units of bank-notes or bank credits; first, because all units in the ratio of price are alike; and secondly, because in the whole circulation of England, outside as well as inside of banks, the units of bank credit determine the number of metallic units placed in each ratio, as well as the general ratio of price.

In the foregoing demonstrations in this chapter I have assumed, according to the *appearance* of the process and common opinion, that what circulates between banks and between individuals and banks—what is expanded and contracted, paid out and retired—consists of units of bank debt

or bank credit. I have written "credit" for the most part instead of "debt." It is immaterial which term is used. The two words express only two different aspects of the bank unit. It is a unit of debt against the bank, while it is a unit of credit to the depositor who disposes of or puts money in circulation by check. I have used the words indiscriminately, however, and they are, while regarded as units of circulation, one and the same thing. But again: what really circulates is the metal in the reserve, in its character of a series of units of valuing, purchasing, and paying power. If this were not so, no bank could ever become bankrupt by being called upon to pay more gold or give checks for more gold than it has on deposit in the Bank of England. In point of fact, such a call bankrupts the bank. The circulation of the units furnished by the metal in the reserve, which takes place, therefore, through checks and crediting and debiting, is precisely the same thing in effect as actual deliveries of coin out of and into reserve.

By bank loans out of depositors' reserve an equal amount of debt, less discount, is created in favor of the borrower and against the bank, and by actually taking the proceeds of the loan in gold out of the reserve the fund belonging to depositors is to that extent reduced. The reserve, which is bank means as well as depositors' fund, is reduced, in the first instance, by creating a new deposit, and a demand credit in favor of the borrower without any increase of reserve; in the latter, by actual reduction. What *seems* to circulate in all cases where money is not actually carried away from the reserve is the unit of demand credit thus created; what really circulates is the number of units of pounds marked upon the check, never exceeding the number of units of sovereigns in the reserve belonging to the bank drawn upon or drawing. That this number contained in the check shall never exceed the number in the reserve is the only limitation imposed under the present system of English as well as American banking. With a fixed minimum ratio of reserve to liabilities which I propose, the limitation would be carried farther against the bank by making checks not only payable

in coin as they now are, but by causing, at least within very short averages, a definite amount to be kept there. In the chapter on American Banking I have called banking not merely what it is in appearance, but in fact, — *loaning money out of a consolidated reserve*. Some repetitions have occurred in reference to coined metal and bank credit, but they were necessary, as they will be hereafter, to explain the entirely new positions as to the nature of coin and the fixed ratio of reserve to bank credit and bank debt which I have taken. At this period in the commercial history of Great Britain and the United States the most important thing to be studied, and, if possible, understood, is the vastly complex subject of banking. It is impossible to understand the subject of production and exchange in these times without understanding that of banking. The influence of banking, in sustaining a system of loans to producers over and above all loans possible without banking, is the main point to be studied and investigated. All money paid out counts units only in the denominator of the ratio of price; and all units in that denominator, whether counted out by units of metal, paper, or ideal units of bank debt, are in counting equally ideal, and their relative value depends upon their limitation and their circulation in such a manner that they shall be used to exchange commodities or buy labor only as fast as commodities produced can be exchanged. This is what all kinds of money not artificially disturbed accomplish, because money accomplishes and follows the natural distribution of commodities, and cannot be used to buy labor faster than commodities can be consumed. Bank loans sustain a volume of production exactly equal to their own over and above all production which could otherwise take place. This is the true reason why Bank of England notes have varied as gold would under like conditions, but have failed to vary as gold varies in France. In France gold varies not with production, as in England, but with production limited at short periods by consumption. The chief difference between English and American banking lies in the fact that in England what is substantially a metallic circulation is expanded by bank loans far in advance of

actual consumption, by means of unduly expanded production; in the United States the expansion of circulation is aggravated by bank-notes issued upon an insufficient and fluctuating reserve.

It may be said, therefore, by way of summary, that English banks do not, as generally supposed, deal in anything like mercantile credit; for that kind of credit does not pay debts, but makes debts, while the kind of credit banks deal in (assuming that they deal in credit at all) pays debts, leaving the borrower indebted to the lender as all loans do, although this debt is only an incidental, not the principal result. Bank loans also leave another result, which is merely incidental—an equal increase of bank debt due depositors. How can this debt increase if banks deal only in mercantile credit or mercantile debt? Such increase would be absolutely impossible. What banks in England really deal in, is the additional circulation which they give money in deposit, by means of loans. The proceeds of the loan, whatever they may be called, buy commodities and pay debts, like all other money, whether metal or notes. The total of mercantile deposits in England buys and pays like an equal total of metal or bank-notes; were every depositor's money kept by itself, and a pound in bank-notes or metal placed by itself for every pound due him, he would buy and pay no more than he does now. In view of the demonstration by induction, by analysis (and in this chapter by the fact that the theory alone explains banking phenomena), that all money is a series of units of valuing, purchasing, and paying power, it is immaterial whether we admit the fact, that in all cases the reserve pays all bank debts, because, except in case of panic, the reserve is always sufficient for that purpose, and clearing only saves labor, or whether we still choose to insist that banks deal in their own debt. It is a dispute about words and terms only. Whether we insist upon the debt theory or whether we admit the fact as it is, one thing is certain in either case: bank loans vary in England without regard to metallic reserve, and therefore without any metallic limitation. Bank of England notes vary

there undoubtedly with gold, as the founders of the bank asserted, but they do not vary with gold as the founders probably supposed they would, because their theory of metallic money was not in accordance with the fact. They supposed it to be a commodity, instead of a unit of valuation, purchase, and payment, limited by and embodied in metal. To make its limitation, and therefore its variation, such as they probably intended, mercantile deposits which are equivalent to bank-notes, must be limited by metallic reserve; otherwise the phenomenon is presented of bank-notes limited by gold, circulating into, out of, and outside of bank reserve, while the equivalent of a much larger amount of notes is circulating through deposits, and varying with loans, but not with gold. The Bank of England can do little for steadiness of prices by raising the rate of interest. Artificial rise in the rate of interest may be salutary, not for the purpose of preventing the efflux of gold, but checking investments through loans. With a reserve kept at short intervals in one unvarying ratio with loans in all the banks, there could be no efflux of gold which ought to be checked. It could arise only from a deficient harvest or some similar cause. The enormous discounts of the English joint-stock and private banks ought to be regulated in some manner, and it is certain that there is no effectual way of doing it but by the reserve. No wonder that the vast transactions of those banks have been supposed to rest on credit; they undoubtedly do, but it is not credit like that of merchants, for it has universal buying power. There is always a foundation of truth in such opinions; and the defect here is want of analysis to show what kind of credit is used. Money itself is founded on credit, and the use of deposits made by the English banks is a credit circulation of the money of depositors, because in excess of the circulation the latter give it themselves. The *final result*, however, is mercantile credit on an enormous scale, through the instrumentality of money. The merchants and other investors finally perceive that the results of their investments stand debtor to other results of labor to a large amount which cannot be realized. To pay

the debt, overstock in the former stands debtor to understock in the latter, and is first pledged as security, capital of investors next, then bank capital by way of guaranty, and lastly, through that guaranty, the capital of depositors. The practical corollary from my theory of money, if admitted, is that gold in the reserve must be considered as a limitation and not a basis of loans. Whether the currency be metallic as in England or paper as in the United States, the reserve under deposit and discount banking should be exclusively metallic, both for deposits and notes, for reasons which will appear in the next chapter.

CHAPTER VI.

BANKING IN THE UNITED STATES.

BANKING in the United States, as before remarked, is like banking in England, except that bank-notes instead of gold are in use. The issue of bank-notes has been intrusted to a multiplicity of banks. The regulation of banks of issue by banks of issue never availed much, and in the nature of things never could, because deposit and discount banking renders it impossible to any great extent, even were it otherwise possible. But suppose deposit and discount banking out of the way, and banks of issue only doing business. How is any one bank to control the rest? The business of a bank of issue, as such, is to issue its own notes payable on demand in coin at its counter, or at a commercial centre. It is said by most writers that a bank of issue cannot keep in circulation an excess of its notes when convertible, because the excess will be immediately returned for coin. But what is excess? They have not defined excess; and until they do, what does the assertion amount to? It amounts only to saying that excess cannot be maintained, and that excess is excess. But what is excess in a true scientific point of view? Surely there can be no excess when prices are steady. But when prices are steady, the exchanges of commodities are going on harmoniously, and therefore there is no relative excess or defect of production in any one quarter: when it is otherwise there is a rising scale followed by a descending scale of prices, as heretofore shown. Therefore an excess of note issues takes place, and is afterwards retired, where the notes, by being expended on labor or raw material in excess of demand on the one hand or altogether unproductively, and therefore in excess of production on the other hand, have

caused an excess of circulation evidenced by a rising scale of prices. The excess is of the same character in both cases. Overproduction in any quarter, therefore, and absolutely unproductive consumption, in other words consumption without any production at all, have under deposit loans a precisely equivalent effect in destroying steadiness and producing a rising scale of prices. Thus, if A. borrows ten thousand dollars from a commercial bank, which I will suppose to be the only bank in the country, and pays it out to weavers or spinners, whose product is locked up and cannot be sold, all the money they expend goes into circulation and is returned out of circulation, leaving behind it an equivalent bank credit, which is not retired until through actual exchanges the product is sold to *consumers* to enable the borrower A. to circulate that amount back into the bank by payment of his loan: the payment of his loan consists in canceling bank credit or increasing the reserve. In the mean time the weavers and spinners have deposited a part of their earnings, say twenty per cent., in a savings bank. What becomes of the two thousand dollars thus deposited in the savings bank? It is deposited by the savings bank in the commercial bank, or one of its branches, and within a month perhaps loaned with eight thousand dollars more, deposited by other weavers and spinners, to the same A. for a year instead of a month; and thus he is enabled to hold his overstock in part by the aid of the very weavers and spinners who received his first money. This latter operation makes the savings bank unwittingly a potent auxiliary in maintaining overproduction by the aid of the machinery of deposit and discount banking. Could this occur under banks of issue only? If it could, there would be so far an issue of bank-notes in excess of commodities exchanged and therefore commerce, giving rise to an equal volume of production, and causing a rising scale of prices, which would for a time conceal the fact of the existence of overstock. With strictly convertible notes, however, and banks of issue only, this would be impossible. If a loan is made in bank-notes borrowed by A. from a sound bank of issue (discount and deposit banks being supposed

non-existent) and paid to weavers and spinners, they pay out as before say eighty per cent. for expenses of living, and twenty per cent. of savings into a savings bank. The money they pay out for expenses of living goes to dealers and others who do not deposit it in a bank of discount and deposit, because no such bank exists; and therefore it is not because it cannot be relented to producers (before A. calls for it) to stimulate production by being paid out for labor and material a second time, thus causing it to be used twice at least as it is under the combined issue, deposit, and discount system (while under the single-issue system it could, for the most part at least, be used but once), and so causing further production to take place before it could be returned to the bank which issued it, either by way of repayment of the loan or for redemption. The dealers, when having no bank of deposit to place the notes, must call upon the issuing banks to redeem in gold, or exchange payable in gold, at a commercial centre, taken from the commercial world's gold at large and not out of a consolidated and fluctuating reserve of gold. The twenty per cent. savings of labor might still under banks of issue only, be deposited in a savings bank in the shape of bank-notes, but the notes could not be relented so as to cause any material excess of production, because the first borrower would be compelled to make sales in the market of consumers to meet his bills maturing with the issuing bank, it being impossible to pay to any great extent by renewals. The savings bank loans, therefore, where there are no banks of discount and deposit, instead of tending to increase production in that quarter where excess of productive power is liable to be applied, will be taken by the owners of what is called fixed rather than by the owners of what is called quick capital. Excess of production in any one quarter as compared with others, which has the same effect on general prices by expanding circulation as unproductive consumption, is kept in check, because redemptions keep prices steady and limit loans. Loans are rarely intended by borrowers for aiding in the production of absolute necessities of life; but if they were applied to the latter purpose and

were to be in as great excess, and produced overstock, as do the loans which cause overproduction of relative necessities, they would have the same effect as the latter in expanding circulation, for the reason that they would cause the same expansion of deposits as compared with the volume of commodities distributed. If A. borrows ten thousand dollars of a bank at Lawrence, Massachusetts, and invests four-fifths of it in wool, and one fifth of it in labor to pay spinners and weavers, and the cloth goes into overstock and cannot be sold, the ten thousand dollars have nevertheless, to a considerable extent, gone into circulation to pay for commodities which are actually consumed: if there be no relative excess of commodities in any quarter, and the ten thousand dollars be expended in consumption without producing anything, the circulation is so far in excess of production. In the first case production was in excess of consumption; in the latter, consumption was in excess of production; but in both, the volume of circulation was increased equally in excess of the volume of commodities actually exchanged. The expansion occurred partly by the increase of deposits and partly by loss of reserve, but it was all one and the same thing.

OF BANKS COMBINING THE FUNCTIONS OF ISSUE, DEPOSIT, AND DISCOUNT, IN THE UNITED STATES.

In the United States most banks combine the functions of issue, deposit, and discount; banks having no charter, and not organized under any general law permitting the issue of notes, are what are called private banks, possessing only the functions of deposit and discount. To conduct such a bank may be regarded, subject to some limitations and conditions, as a common law right, both in England and the United States. The founders of the Bank of England supposed, all the English bankers of the time supposed, and all the English bankers of the present day, so far as they have spoken or written, appear still to suppose, that all banks having the functions of deposit and discount deal, for the most part at least, in what they call debt. All the English and all the American writers upon the subject of money and exchange,

are of the same opinion. Mr. Bonamy Price, Professor of Political Economy in the University of Oxford, has maintained the theory with great vigor and force, in showing how utterly useless a large banking reserve is, assuming the theory to be true. His argument is sound and unanswerable, if it be true that a bank deals almost altogether in "debt."¹ Hence the only point at which his argument is assailable lies in the premises. Does a bank deal in debt altogether, or for the most part at least; or, on the other hand, does it deal in money altogether? Has it anything but money to give in exchange for the bills, notes, and other securities it buys or discounts? I affirm that it has nothing but money to deal in, because it can deal only in what it originally received. To say that a bank deals in debt or credit is really equivalent to saying that it deals in confidence; but this expression is without meaning, and equally so is the other. The fallacy involved in the expression comes naturally from the fallacy contained in the assertion that gold coin, in its character of money, is a commodity; and a greater fallacy than this can hardly be found, although it approaches very nearly to the truth. I say, very nearly, because the material of which gold coin is made is a commodity; the units of valuation, and purchasing and paying power, brought into operation by the use of the coin, are not. They are no more so than like units brought into operation by the use of bank-notes, or even bank debts, were bank debts so used. I will demonstrate this proposition in a few words, as I have already done in other chapters. The use of gold and silver to coin units of valuation and purchasing and paying power is conven-

¹ In one sense only does a bank deal in debt. All its deposits over and above reserves are debt due the bank by producers of some sort for stock in the shape of products, which remain unsold over all products of the kind which could be found, if the loans from the bank had never been made, allowing for differences in prices, in the two cases. For all this accumulation of unsold stock, which has cost metal or bank-notes out of the reserve, the commodities in stock stand debtor to the commodities consumed by the laborers who have produced the stock, and the producers of raw material. The debt can only be paid by exchanging the stock indirectly through money, for other products offered by consumers.

tional, as the partial demonetization of silver has practically shown. The use being conventional, the value is conventional. Gold is not worth what it buys, because it cost an equivalent amount of labor to produce it, but it cost that amount of labor (if such be the fact) because the conventional value, which means purchasing power, makes it worth that amount of labor to obtain it. Take away conventional value, and a large part of the labor employed in mining gold will be stopped. Its conventional value controls and absorbs all its mercantile value. Again, token coins as they are called, by the very fact of their use, furnish a practical demonstration to the same effect. Such coins derive their conventional value from the fact of, and the limitation implied in, coinage on government account, with the exclusion of coinage for individual account. If it were possible to devise a plan by which governments could combine in coining silver for what is called token circulation, with one fifteenth of the present mass of silver coin, and hereafter with such portion of the annual product as would maintain conjointly with gold the same ratio of value of total annual coinage, to the total value of the mass already in coin, as would be maintained were silver universally remonetized, then a token coinage of this kind, were the danger from counterfeiting removed, as it probably could not be, would be as stable in value as gold itself. This, however, would be impossible, not because there is any natural relation existing between given weights of silver and of wheat, or other commodities, but because such a convention could not be carried into effect, by reason of the impossibility of controlling the quantity of the mass of silver in coin, the annual production and the annual consumption by manufacture.¹ These elements would

¹ The term Token Coinage is not correct. Waiving the danger of an excess of coin by counterfeits made of true metal, and the possibility of governments issuing an excess, single and double eagles of silver might be coined of the same weight as those coins now have of gold. They might be declared of equal value with those coins and legal tender. They would then stand precisely upon the same footing of national conventional value as the treasury notes called Greenbacks, do to-day. The field of convention would be the United States, and not the commercial world. Such coin would be subject to the same

render abortive all such attempts. Again, it is a fallacy to assert that bank clearings, or transfers, or contractions of bank debt effected in any manner, are the real payments, because if money is not taken by banks, or by customers out of the reserve, in the shape of coin or bank-notes, it is because the labor is saved by clearing or otherwise. Banks have coffers amply stored to meet, and much more than meet, all ordinary calls, as Mr. Bonamy Price has well remarked. If the coin is not taken out by a check-holder, who wishes to make a deposit or pay a bank debt, it is because it is unnecessary, and because he would thus lose a part of the unrivaled convenience given to customers by our banking system. The result is the same as if the metal or notes were taken from deposit and afterwards redeposited. Clearing is precisely the same in principle, then, with payment out of bank, of coin or coin vouchers in England, or bank-notes in the United States, to pay for labor or commodities; the only difference is that clearing is possible as to the larger transactions of commerce, because coin or notes, if paid out, would stay out of deposit less than a day, while as to the smaller transactions they must stay out a much longer time. Therefore, if the clearings are mere settlements of credits, so are the payments of gold in England and bank-notes in the United States, from the reserve, and their return afterwards to the reserve; the difference is only one of time. But there is *some* truth in the assertion that a bank deals only in debt; the fallacy consists in not stating the whole truth; and the whole truth, as I have just demonstrated, appears to be that gold coin, when used, only furnishes units of valuation and purchasing and paying power, inversely proportioned to the number used to buy a given number of units of commodities; that both convertible and inconvertible government and bank notes furnish units of like sort; and that circulation resulting from the use of gold coin or bank-notes, out of

objection with these notes; they could not follow the tracks of commerce throughout the commercial world. The German and Latin union silver coin now circulates upon this principle; it is not money of the commercial world.

a fluctuating and virtually consolidated reserve, which is the sum of all banking reserves, is of the same kind. This circulation may be called a credit circulation, only in the sense that it is substantially the same thing, whether gold or notes be paid out, because gold or notes may be wanted, or because clearing is impossible; or, on the other hand, saved from being paid out, because it is possible. An excessive circulation of gold, therefore, growing out of the use of a consolidated fund of gold, is the same thing in effect as the circulation of units of bank-notes, whether convertible or inconvertible, or units of bank debt. None of these cause a circulation of debt, credit, or confidence, because that would be absurd and impossible; but *all furnish units of valuing, purchasing, and paying power*. The problem to be solved, therefore, is how to keep these units founded on credit or debt in subordination (in point of number) to the number of units of commodities, not produced only, but produced and consumed, so as to keep steady prices.

No doubt units of valuation and of purchasing and paying power could be furnished by means of banks, and indeed by merchants, or even consumers generally, in the shape of notes, bills, or book credit. But clearings would be impossible between these persons except by the aid of banks.

The mistake, therefore, lies not in asserting that credit or confidence is the foundation of all dealings with banks, because that cannot be denied; but in asserting that gold and silver coin are commodities, having value in themselves as coin, distinguished from their conventional or what may be called their accredited value, and that credit can, by any possibility, furnish a circulation in any other than the character of units of the kind named, redeemable on demand by the issuer, in gold coin, if he has so undertaken; and if not, redeemable by all issuers in the shape of checks or drafts upon commercial centres; and exchangeable for all commodities in the hands of every holder. Hence it appears that everything is money which is used as money, and all money is founded on convention in the first instance, and confidence in the second; that what has thus by common consent received

conventional value will continue to maintain it ; that having cost the present holders labor, commodities, or capital, it can in like manner be exchanged by them for either of these when it suits their convenience ; and that if demonetized by government, its value will be maintained until it can be redeemed and retired, as is now being done in Germany. The value of all money lies in its purchasing and paying power ; credit implies waiting for payment. The only essential difference between the different kinds of money, then, in respect to the holder (even admitting that units of bank debt or credit circulate, as in point of fact they do not), lies in the greater or less confidence in the maintenance of its purchasing power, its comparative security against fraud, force, destruction, or loss, and the field of convention in which it is circulated. In respect to the commercial world at large, and each commercial country, there is a difference between the units of money, however, which upon the foundation of the foregoing demonstration can be explained and understood, while upon the theory that gold coin is a commodity in which all other money ought to be made redeemable, because a dollar in that metal cost a dollar of labor, it is utterly incomprehensible. Gold costs its value in the miner's labor (if such be the fact), only because it is worth that sum by convention of the commercial world ; and a like amount in bank-notes or a bank credit, which is a power to draw an equal amount of bank-notes, has no value, it is said, although it may have cost the holder an equal sum.

The *essential* difference between gold coin and inconvertible bank-notes, and between gold coin and inconvertible bank debt by entry lies in the fact that gold, if there were no banks (and the same is true of silver), would follow in the tracks, not of production, but of commerce, when loaned for the purposes of production (as is the case with nearly all loans), and the power of loaning, or in other words of expanding the circulation of money, by paying it out to one who is engaged in producing, would be very nearly limited by the markets the producer would be able to find for what he produced ; and no excessive overstock or undue production

would be possible in any quarter ; but when purchasing and paying power can be furnished by the lender in the shape of promissory notes or book debt, he is not limited in his power of lending by the actual markets, but only by the ability of the producer to pay his loans. There is no limit to his power of lending, except the ability of the producer to sell at a profit so far as he sells at all for consumption, or to a merchant for holding upon a rising market ; and here lies the most complicated part of the complicated process. The market will continue to grow by what it feeds on ; all prices will rise by the general expansion of circulation to the limits of production of the kind before mentioned, which is all the time advancing beyond the ability of other producers to take and pay for. The necessary consequence is that a large volume of products is distributed from first to second and third hands ; and the resulting payments of loans by the first class, in consequence of new loans to another class of producers, furnishes of itself an active commerce, and an active banking business in the United States, although it is as purely speculative as any business can be. The speculation is masked under the reality as well as the appearance of active business. The consequence is that a crisis is the only remedy ; production is then contracted together with circulation as much as it was before expanded ; and the total production of the whole cycle of ascent and descent is not equal to the production which would have occurred for the same period under a stable metallic currency like that of France for instance, conducted for the most part without the aid of banks.

EXPANSION OF CIRCULATION UNDER BANKS OF ISSUE, DEPOSIT, AND DISCOUNT IN THE UNITED STATES, COMPARED WITH THAT TAKING PLACE UNDER BANKS OF ISSUE.

It remains to show the exact difference between the expansion of circulation possible under banks of issue, deposit, and discount, and banks of issue only. Banks of issue whose notes are redeemable in coin cannot, if convertibility is perfect, cause a very excessive expansion of circulation ; and conse-

quently cannot cause a very excessive expansion of production. The reason why an exclusively metallic circulation, distributed by, and following closely in the tracks of commerce, cannot give rise to excessive loans, and so to excessive production, in the absence of banks, has been partially given. Banks of all kinds disturb this natural distribution of metal. Hence France, in proportion to commerce, has more metal than England, and England more than the United States. A comparatively small number of units of bank-notes and bank credits take the place, and more than the place, of the additional units of metal which would be found were there no banks, as in France, because units of bank-notes and units of credits increase the whole number of units substantially in the same way as a like number of metallic units over and above all such units existing in the commercial world, if suddenly discovered and distributed, would do ; and so of all such units, throughout the commercial world. England has more of these in proportion to commerce than France, and the United States more than England. Now, as these units maintain on the average in France, and for the average of the cycles of ascending and descending production and prices in England and the United States, a certain volume, they must either control, or be controlled by, the volume of metallic units ; and the metallic units can furnish no control unless they are allowed to distribute themselves according to the laws of commerce. Therefore, in order to furnish such control, they must always, on short averages, be found circulating in definite ratios with the other units. If they do not, and they surely do not in England and the United States, then the volume of bank-book-credit units in England and bank-book-credit and bank-note units in the United States, controls the volume of metallic units circulated in either country.

Steady prices, as I have shown in other chapters, would necessarily result even from a "credit" currency if production were steady, that is to say uniform, in all quarters of the grand field of human industry. The constant use of the term Price, which means the number of units of money

required to be given in exchange for a given number of units of commodities or capital, and which is the necessary result of the use of money, tends to conceal from the understanding the operative cause of steady and unsteady prices; and to make it appear that what is only an effect is in reality the primary cause. If the demonstration of M. J. B. Say, in his Political Economy, that there can be no overproduction, were as true practically as it is abstractly, the commercial world would never need to give itself much trouble about steady prices. Here is another instance where by mere abstract reasoning effect is taken for cause, retarding the analysis demanded for the purposes of practical science. That there can be no overproduction is true only in a broad sense, and upon long averages; while it is, at the same time, only the *result* of an active cause, and not a cause in itself.

The tendency to overproduction, since the commencement of this century, has been constantly increasing; not only improvements in machinery, but the introduction of steam navigation and railroads, have caused mankind to advance wonderfully in civilization. The most enterprising and advanced nations are the most likely to take the lead in that production which is the result of high civilization; but they must find markets for all they produce, or limit their production by the markets which offer. There can be no excess of the absolute necessities of life however. These and population are abreast, and production in this quarter may therefore be called the production at the base line, beyond which all other kinds of production are unable to go far; otherwise they will be in advance of the necessities of life, of population, and of the ability to maintain those exchanges which are the foundation of all society, and of all commerce. That M. J. B. Say, able thinker and writer as he was, did not place his demonstration of the general or abstract proposition, that overproduction is impossible, on this solid ground, is not to be wondered at, because the evidence of facts now known was comparatively hidden from him, although it was referred to by Sismondi, Malthus, and perhaps others; and he could not have been entirely ignorant of it. Moreover, every Eng-

lish and every American writer since his time maintains his theory and cites the demonstration Say has given. Again, there is not a single writer who has broached the analysis and the argument I have just offered, although some have claimed that an excess of production in manufactures has arisen from improved machinery; and some have claimed, that it has arisen from excessive taxation. The error of these writers consists not in putting effect for cause, as Say has done, but in making auxiliaries which only bring the grand cause itself into operation more quickly and efficiently than otherwise, the cause itself. The grand cause or law which renders overproduction impossible has been stated; the business of society is to produce, and to exchange surplus production, and production is carried on by the members of society, either actually or representatively. A large surplus in any quarter that cannot be exchanged cannot be maintained perpetually: the producer, in order to live, must seek some other place in the field of production if he produces in person, or if he hires laborers, must discharge a part of them, and they will then be forced to seek some other place themselves.

This latter demonstration is sufficient only to show abstractly, and in a general way, that there can be no overproduction anywhere on the average; but it would also be practically sufficient, if all exchanges could be and were made without loans of money. Overproduction in any quarter cannot be carried far when the producer uses only his own capital: to bring it to the point of a commercial crisis he must loan not capital, but purchasing power, which alone will procure him such capital in the shape of raw material and such labor as he wants. But even then he cannot carry his overproduction far enough to produce a crisis if he appears to be losing all the time, as he would do if unable to sell any part of his product for cost. He will not be inclined to go very far in that direction, nor will the lender allow him to go far. Moreover, it would be impossible for the lender to do so under a metallic currency without banks, because, as just shown, gold and silver follow the tracks of commerce,

which distributes for consumption only, and the gold would not return to the lender unless the borrower could sell and thus pay his loan. The impossibility of the lender's supplying him, and the loss by depreciation, would, without any other causes, therefore, stop overproduction before a commercial crisis. What, then, is the cause of that overproduction in our day which leads to commercial crises? If it cannot come from the use of a metallic currency without banks, can it come from bank-notes, issued by banks, having only the function of issue, and strictly convertible at the place of issue or a commercial centre? If the notes are strictly convertible, it will not be very likely to occur, because metal will control the circulation of the notes by circulating on the short average, in definite proportions with them. Redemptions will be made, as already shown, in metal taken from the commercial world's stock at large. Overstock, therefore, if overstock there were, would show a loss by falling, rather than a gain by rising prices; and the banks would be compelled to redeem out of the commercial world's stock of gold, which in case of overproduction they would be unable to procure for the same reason the lender under metallic currency could not.

Therefore the cause of that overproduction which leads to commercial crises in our time must lie with deposit and discount banks, for all other supposed causes have been shown inadequate. Improved machinery making a smaller amount of hand labor necessary would, by itself, only demonstrate loss by overproduction the quicker, while taxes and tariffs would have the same effect.

Where, then, lies the cause? Is it possible to demonstrate exactly in what part of deposit and discount banking it lies? I affirm that it is possible, and proceed to offer the demonstration, premising, to avoid misconception, that I do not affirm deposit and discount banking *in itself* to be the paramount cause of commercial, industrial, and banking crises, but the system of loaning money which knowing and having no limitation whatever to loans, short of such a crisis, conceals the growing cause of the crisis (overstock) from the

eyes of the industrial, commercial, and banking world by making it develop a rising instead of a falling scale of prices. Thus, after a partial and not dangerous overstock has made its appearance, by reason of a failure of crops or other cause affecting demand and supply, if no more loans under a metallic currency without banks are to be had, because no more coin has yet found its way back to the reserves of the lenders by sales of commodities, the prices of the overstock will fall immediately, and instead of being misled by a rise into more production, the manufacturer will sell what he has at lower prices until the equilibrium of prices is restored; but if he could borrow money freely he would, by rising prices, be induced to increase rather than diminish his overstock. The paramount forces at work then are, 1st, the law which maintains population abreast of the production of the necessities of life; 2d, the fact that it is now possible to produce the relative necessities which result from civilization and progress in advance of absolute necessities and therefore of population. The counteracting forces are the loss of capital that occurs by overstock, and the impossibility of obtaining money to buy more material and labor until the overstock is sold. If overstock in any quarter were impossible, paper and credit money issued by sound banks would give steady prices, as I have demonstrated in another chapter, without the aid of metal. Because overstock, however, is not only possible, but very likely to occur, a kind of circulation that will maintain steady prices must, *e converso*, check overstock at a point far distant from and before a commercial crisis. Therefore, inasmuch as in point of fact there is no limit to deposit and discount loans short of a crisis, because there is no limit to circulation in the reserve, and prices are in the ascending scale until the signs of a coming crisis appear, we have, in the loans of deposit and discount banks, and the ascending scale of prices their loans produce, precisely the factors which impede or prevent the operation of the counteracting forces above mentioned, which tend to prevent overstock reaching that extent which causes a crisis. The first of these factors is the unlimited power of loaning in the United States. And

why is it unlimited? A brief and rigorous analysis will develop the cause, with a certainty almost equaling that of a mathematical demonstration. Out of pig iron, wool, lumber, building materials, cotton, etc., let us select cotton. Under a metallic currency, without banks, if advances are made to a cotton planter by a neighboring capitalist or merchant, and the cotton planter forwards his cotton to New Orleans, or sells to a buyer who does so, the bill is paid in gold at New Orleans out of the commercial world's stock at large, which is distributed in the tracks of commerce. The expansion of circulation which took place at the cotton planter's home was in consequence of the production of a new commodity; this expansion is retired at the place where it occurred, but follows the cotton to New Orleans, or rather reappears on its arrival, through a new loan made by a cotton factor there. He forwards the cotton to a point between New Orleans and New York and sells it there. The expansion of circulation at New Orleans is retired by an expansion at the intermediate point, occurring as before in consequence of a loan. Thus all the expansions are retired from time to time as the cotton leaves one point and is carried to another; and finally it is located where the cotton is located at the intermediate point. At last the buyer at the intermediate point, finding no market there, consigns it to New York city and it is sold to a cotton factor, who sells it to a manufacturer in the country. He borrows in the shape of a bill of exchange on New York city forwarded from his place of business to the intermediate point, and takes the cotton home. All previous expansions are thus retired by the last and final expansion caused by the manufacturer's loan. Had there been banks of issue at all the points, but no banks of deposit and discount in the United States, the mode of payment, that is to say of contracting and expanding circulation, would have been the same, viz, by bills of exchange; and these bills would have been paid out of the commercial world's stock of gold, or bank-notes payable out of that fund, and not out of a consolidated fund of gold. The important fact to be noticed is, that while the payment of each loan

places the lender who made it precisely where he was before the loan, the power of all lenders to make further loans is diminished by the last cost of the cotton until the manufacturer can produce and sell his cloth. There has been an expansion of circulation equal to the value of the cotton marketed, and unless it is retired in due season by a sale and consumption of cotton goods, it will produce a rising scale of general prices if many similar instances occur. But this is impossible, because the means of the last lender are exhausted to the extent of the loan, and they can only be restored by a sale of cotton goods. The exhaustion of his means, moreover, does not restore another's means. This exhaustion is not counteracted, as it could be under deposit and discount banking, by a deposit of the gold paid out on the bill of exchange issued upon the last loan into a bank, which would thus, by virtue of that very expansion of circulation caused by the last loan, be enabled to expand circulation as much more, instead of contracting it. Take now the case of the same cotton, under a fully developed system of deposit and discount banking. The original advances at the cotton planter's home may be made by a bank: whether bank-notes are paid out or credit only is given and transferred by clearing, it is all one, as previously shown: the expansion at the planter's home, which arose with the cotton, is retired by means of a bank loan at New Orleans; at New Orleans by a loan at the intermediate point: and at the latter by a bank loan at a manufacturer's residence. The expansions and contractions are precisely the same as before, and are effected through checks or drafts instead of bills of exchange. The last bank draws upon its correspondent bank in New York, which is in debt to it, and the effect is simply to transfer to some other bank in New York an equal sum of gold or notes in the bank which holds the reserve (consolidated it may be called) of all the city banks. This last expansion precisely equals each of the previous contractions: it corresponds exactly to the value of the cotton just marketed, and is entirely legitimate and proper as in the case of the metallic circulation, and the case of convertible notes,

if it does not give rise to a further expansion by enabling the city bank, whose deposits have thus been increased, to make this increase the foundation of further loans. If it does, and it surely will, the marketing of the cotton, worth say ten thousand dollars, has given rise to an expansion of circulation to the amount of twenty thousand dollars, and the last expansion may give rise to a third.

Again, the cotton is manufactured fast enough but does not sell: the rising scale of prices, nevertheless, conceals from the eyes of the banks, the manufacturers, and the merchants, the real facts of the case, because the rising scale *seems* to come from the legitimate demands of commerce, in behalf of actual consumers. The cotton manufacturer, therefore, sells his cotton goods, which consumers do not want, to a merchant, who supposes that the rising market is really a market of consumers. This merchant, in order to buy the goods, makes a loan in another city bank, and pays the manufacturer, who can thus pay his loan to his country bank, which, deceived by the same appearance, thinks itself enabled to make another loan of equal amount to the manufacturer, who buys cotton again, but rather less in quantity, because the rising scale of prices has carried up the price of cotton. In this way a third, or perhaps a fourth, expansion of circulation occurs, in consequence of the marketing of the first lot of cotton, when under a metallic or convertible note circulation only one, or certainly, on the average, much less than two expansions could have been maintained at the same time out of the same lot of cotton. Now, inasmuch as there is no assignable limit in figures to the power of circulating money in the reserve, and therefore none to the power of making and taking such loans aside from their ultimate effects, the only *practical* limit is a commercial crisis, which brings into operation the paramount causes to which all others are subordinate. There is no essential difference between the cases of the metallic, the convertible note, and the deposit and discount circulation, except that in the latter expansion of circulation is piled on expansion of circulation, causing production to be piled on production without exchanges of the products for other prod-

ucts taking place, until the exchanges are so blocked that a crisis is unavoidable. Convertible notes outside of commercial centres, and in commercial centres gold coin, might be paid out without any kind of clearing, transfer of bank debt, or setting off of bank debt against their own debt due banks by customers, thus making the whole circulation of the United States under "specie payments" that of metal and strictly convertible bank-notes; and the result would still be precisely the same. "Clearings" seem to demonstrate to the understanding that a bank deals largely in the debts due it by other banks, and in fact redeems its own liabilities in the shape of book debt by transferring, first or last, to the party demanding redemption, book debt due it from other banks, while the customers of all banks seem to pay each other by transferring to each other the indebtedness to them by book of all banks, yet the analysis before made demonstrates to a certainty that every payment to a bank customer is the source of a deposit by another customer, and a loan in consequence to a third customer, converting even a metallic circulation substantially into what is called a credit or debt circulation. The latter term, however, is entirely a misnomer; the actual change accomplished by abandoning the first two monetary systems is from a circulation in the tracks of commerce, limited within short periods by consumption, into one limited only by production, and therefore by a commercial crisis. In addition to that of science we have thus a practical demonstration of the truth, that the only essential difference between one kind of circulation and another consists not in the kind of money used, whether metal or not, but in the limitations imposed upon the act of circulation by surrounding conditions.

A better word than circulation might perhaps be employed to convey a correct idea of the process of carrying on the exchanges of the social system by means of units of valuation, and of purchasing and paying power. The danger of misconception of what actually takes place, and of what ought to take place in order to maintain steady prices, lies in the fact that circulation may and probably does lead to

the idea that money, after it is paid out to the borrower in exchange for his note or bill by the lender, is paid out many times, and ought, in due course, to reach many hands and continue a long time out before it is returned to the lender. This idea is erroneous. In order to maintain steady prices with either private or bank loans the money must be paid out by the producer, if a merchant, either directly, or through another merchant or merchants indirectly to the first producer, and from him for labor or raw material; thence for the most part from the laborers or sellers of raw material within short periods to dealers and others who will require it to be redeemed in exchange on commercial centres. This latter redemption, instead of being made the foundation of further loans by other banks by virtue of redeposit, ought to prevent the redeeming bank from making further loans until its metallic reserve, if below a minimum average, is brought up by payment of loans through producers' sales to minimum average again. This would *necessarily* take place under a sound and well conducted system of banks of issue without deposit and discount, because were the banks to continue to loan, the reserve would soon be exhausted, and could not be replenished out of the commercial world's stock until producers could by sales carry it back, following the tracks of commerce, to the issuing banks. The metal in the reserves of a connected series of deposit and discount banks kept in no definite ratio to debt is merely ballast: it cannot follow the tracks of commerce: it cannot form on the average a definite portion of the purchasing power of every transaction as it does with well conducted banks of issue. Therefore, inasmuch as the metal is by means of deposit and discount banking artificially kept out of the tracks of commerce, and its regulating power in the way of putting limits to possible circulation through bank loans in this manner artificially lost, it must by artificial means be forced back into the tracks of commerce, and this can be done only by each bank establishing the same minimum ratio of metallic reserve to liabilities, below which it will never loan and never intentionally make a loan which will be likely to carry and keep it be-

low for any considerable time. Such a system is possible, and would be practicable if all banks were as well managed as some banks are, but utterly useless unless generally enforced. The difficulty is the self-discipline required in stopping loans when one is not absolutely compelled to stop. Here lies "practically" the difference between a metallic circulation without banks, or a well-conducted system of banks of issue only, and deposit and discount banking. In the former two cases *I would* gives way to *I cannot*; in the latter *I cannot* to *I would*. In the May and June numbers of the "Bankers' Magazine," N. Y. (pp. 876, 963), 1875, I maintained the necessity of a minimum ratio of metallic reserve to liabilities, but I did not and could not, as before stated, demonstrate the absolute necessity of it to steadiness of prices, because I then supposed metallic money to be a commodity, having value equal to the labor it cost. Having, after much reflection, arrived at the conclusion that it is not a commodity, and having at last succeeded in demonstrating in a former chapter that it is not; that nothing circulates but money, and that money consists of a series of units of conventional valuing, purchasing, and paying power, whether the units of circulation are of coin, bank-notes, or bank credit, and that there can be no ascending or descending scale of prices without the employment of such units, — the material question being, What is the number? and not, What is the kind of units employed? I have been enabled clearly to demonstrate that there must be a fixed ratio artificially maintained in order to maintain steadiness. In nations possessed of such immense productive energy as the United States and England, which have been for more than two generations moving in ascending and descending cycles of productive energy, and consequently of production, and of rising and falling prices as a necessary attendant upon these, while France has moved in cycles of political revolution, although her productive energies have been steadied by a metallic currency following the tracks of commerce, it would be useless to maintain that steadiness of production, and therefore of prices, can be at once perfectly maintained by regulating banking reserve.

One thing is certain, however: there is no other mode of regulating bank loans; and a rigid adherence to it, if it be possible to enforce it, would force accumulations of overstock into market at short instead of long intervals, and cause a progressive increase of steadiness.

SUMMARY OF BANKING IN THE UNITED STATES.

The *essential* difference between banking in the United States as we find it and as it would be with a gigantic bank of issue and branches, or with numerous banks, independent of each other, capable of supplying all the currency required, but without the functions of deposit and discount, is this: that while under all systems of banking, bank debt, in whatever form it appears, — whether in that of book entry or note, — is regularly redeemed in some manner, and largely in metal, in banks of issue it is redeemed in metal taken from the commercial world's stock at large following in the tracks of commerce; and the redemptions of one bank are not the foundation for the discounts of another. Under banks possessing the functions of issue, deposit, and discount without a regulated reserve, bank debt is redeemed out of a reserve which has no relation whatever to commerce, and is replenished, not by gold taken from the commercial world's stock, but by gold moving all the time out of one banking reserve into another, thus making all banking reserves virtually one. The difference between the two kinds of banking lies not in the generally supposed fact that a bank of issue redeems in gold, while a bank of deposit and discount redeems in bank credit, because it has nothing else to redeem in. It is a great mistake to suppose anything of this kind. There is the same necessity for redemptions under one kind of banking as under another. Nine tenths of all redemptions take place in the regular course of business, — the business of internal commerce. The object of commercial redemptions by banks is to enable merchants to pay for their purchases at commercial centres by means of checks and drafts. Bank debt by note and book is thus redeemed; the debt by note being usually converted from time to time into debt by

book, which is retired by redemption through contraction. This redemption consists in a transfer by the depositor, through the instrumentality of a check, of bank debt at the commercial centre belonging to the country bank received in exchange for the debt of the latter to the depositor, assigned by his indorsement to the city dealer, and by the latter directly or indirectly through a check set off against his debt by bill or note due a bank there.

Meanwhile the notes thus received from time to time have, before redemptions take place, been loaned to producers, which would have been impossible with banks of issue, and the bank has in its portfolio the notes or bills of producers to show for the amounts thus loaned and afterwards taken from its reserve at the commercial centre. All loans, therefore, come out of reserve, first or last, and every loan is immediately the cause of a diminution of the ratio of bank reserve to bank debt. This is precisely the case with banks of issue. With rigorous accuracy, therefore, it may be said that all money is founded on credit and confidence, not excepting coined metal; that in all banks loans are made out of reserve, because a bank has no other fund to loan from; the equation under all circumstances being: Deposits *minus* Deposit Loans *equal* Reserve. Hence the difference in the two kinds of banking in respect to redemptions consists in the ratio of reserve to liabilities, and the manner of replenishing reserve.

Finally, not to describe fully the part in the grand business of production played by savings banks in the United States would be to leave out the part of an important auxiliary. These banks receive the savings out of the vast field of productive labor chiefly engaged outside of the absolute necessities of life. The savings of labor are redeposited to a considerable extent by savings banks in commercial banks. They are loaned to the same producers who borrowed them before, without any redemption having taken place at all, because these are savings and have led to no consumption as yet, the commercial banks being thus far merely depositaries and the savings banks making all the loans. It would not

be true, therefore, to say that savings banks are the auxiliaries of commercial banks in making loans in the start, but they are potent auxiliaries in creating overstock, so far as their loans are made to the owners of what is *called* quick, and not fixed, capital.

Perhaps it is of little use to undertake to demonstrate the true principles of production and exchange of commodities by means of that system or process of giving units of valuing, purchasing, and paying power called money. The fallacies which pass for truth have so much that is true mixed with the false that it is hard to convince the understanding of the truth, even by actual demonstration. All money is substantially the same; the difference is in the field of use. Gold and silver coin in a consolidated reserve furnish a circulation substantially the same as that of units of credit. When, however, allowed to circulate in the tracks of the commercial world's commerce, and distributed by units of weight, its circulation approaches nearer than any other can to the steady circulation we should always have, no matter whether it were metal or not, if production throughout the commercial world were in harmony.

There is but one remedy: to make every application for a loan depend upon the banker's response to this question, Will the loan, if made, carry my reserve below the minimum ratio established by law? If it will, I cannot make the loan; if it will not, I can. Granted the possibility of carrying out such a law, if made, and assuming that it has been actually passed and carried into effect, coin will form a part of the whole circulation going on outside of banks, and will have the same ratio to it that reserve will have to that part of deposits which is bank debt. The proportion will be,—Written Bank Debt circulating outside of banks : Coin circulating outside of banks :: Bank Debt by Book : Coin Reserve. It is impossible to have a bank-debt unit circulation of any kind (whether it be debt by book or note) regulated by a metallic reserve, unless the units of metal circulate in definite proportions with the units of credit. Such was the kind of circulation in Scotland in Adam Smith's

time ; such would it be in the United States, even with deposit and discount banking, if all production were harmonious, because whatever reserve a bank might begin with, the payments into it would on short averages equal the payments out of it. Harmonious production would surely give steady prices even to a currency of units of bank debt, whether by note alone, note and book debt, or book debt circulated by the instrumentality of checks. Therefore it follows, *e converso*, that the maintenance of steady prices obtained by the use of an entirely metallic circulation, or by a circulation of units of bank debt kept in definite ratio to units of metal in the reserve, will maintain steady and harmonious production. The understanding must be relieved entirely of the fallacy that gold coin is a commodity because it cost all it is worth to mine, smelt, and assay it, and thus enabled at last clearly to perceive that the whole value of coin, as of all money whatever, is conventional and lies in its purchasing power. The implied guaranty of the continuance of this conventional value as to the coin of any one metal, on the part of governments representing commercial communities, until in due course redeemed by coin of other metal, and the express guaranty on the part of banks to redeem in metal, will then, when fully understood, furnish a foundation for the knowledge of monetary science. The only cost value of gold coin lies in the last purchases it has accomplished, precisely as with paper or credit money. If ten thousand dollars in gold coin buys ten thousand dollars' worth of cotton goods to-day, it has then cost exactly that sum reckoned in goods, and that cost redeemed its preceding cost in goods, if it had ever been paid out before since it was mined, smelted, and assayed. So of units of bank-notes or credits. Before gold is coined for the first time, the guaranty of governments on behalf of the commercial world is that it shall continue to pass like all other gold ; and before units of bank debt are issued for the first time, the bank guaranties that they shall be always convertible into coin. If ten thousand dollars is paid out to-day in good bank debt for cotton goods of that value, the seller has no re-

course or further claim on the buyer; the bank debt, which is a power to put in circulation a like amount of gold in the reserve, thus passed to the seller, has cost ten thousand dollars in goods, and is therefore intrinsically worth that sum, because it has cost it. If governments were to demonetize the metal of which the coin is made, without providing for its redemption by other metal or by government notes, and the community were to act upon the demonetization, the conventional value of the metal would depart, and with it the foundation of the conventional and the guarantied value of the bank debt, unless it were to continue to circulate as debt redeemable always in purchasing power of a like kind in the shape of notes or bank credit, through its conventional exchange value, like all irredeemable bank debt; the guaranty of the bank then and thus being changed virtually into a guaranty of a continuation of purchasing power by redemption with units of credit that shall continue to have like power.

The foundation of all money, then, is credit and confidence in the issuer: as to coin, credit and confidence that the government will not demonetize the material of coin without redeeming by another, and as to bank debt, that banks will always redeem in coin so long as it is not demonetized, and under all circumstances, even if demonetized, will maintain the purchasing and paying power of their debt. There is nothing whatever in the nature of circulation, as effected through banks when rightly understood, that is in point of the true science of money and exchange peculiar to banks, except the maintenance of loans to customers. If the circulation of the United States were entirely metallic, without banks, and all the business men and capitalists of New York city, being by supposition of good credit, and mutually entitled to each other's confidence, were to consolidate their money reserves to the amount of say fifty millions in one bank, managed by themselves or agents, with the understanding that any one might draw out upon check in coin to twice the amount of coin he might at any time have to his credit, every joint owner in the bank agreeing to deposit and keep all his receipts of money in the bank, the right to draw

out money upon check to the limit named being made subject to the proviso that the coin in deposit should never be reduced below the ratio of one in coin to four in the indebtedness of the bank to depositors, which is always equal to the indebtedness of depositors to the bank, — the bank of course at all times owing depositors who do not borrow the same amount that depositors who do borrow owe the bank, — we should have a bank conducted, with only one important difference, upon the same principle as deposit and discount banks are now conducted in England and in the United States; and what is that difference? It lies not in the fact that in the case I have supposed the depositors make the profits, and the banks in the other; but in the fact that I have in this case supposed the coin to be kept in definite ratio to liabilities, causing steady prices, after the surplus gold thrown upon the domestic market, by the overdrafts of those who might overdraw for their own use in production, or to lend to others for that purpose, had been distributed throughout the commercial world. To every one who chooses to study the case I have supposed, it must be plain that no bank credit, no bank debt, and no depositor's debt circulates, or is cleared. Coin is always paid out and nothing else; coin is always received, and nothing else; and nothing circulates in the community but coin. There is an economy of coin to the amount of seventy-five per cent. obtained at the cost of spreading the seventy-five per cent. saved at home over the metallic supply of the world. A large ratio for home commerce, a small one for the world's commerce: but the economy is only apparent because it raises prices for buyers as well as sellers. The bank owes precisely the amount of its reserve in coin *plus* accounts overdrawn, and so has a dollar in coin for every four dollars of liabilities. There is no circulation however of bank debt, nor can the debt of depositors to the bank be circulated. The debt has no objective reality as money in itself; it is only the *result* of overdrafts upon the coin; the payment in full *by* depositors of their debt to the bank would restore the original deposit of coin, with the subsequent gains; so the payment in full *to*

depositors by the English and American banks would restore the original deposit of coin and bank-notes. In the case I have supposed, the first debt of all is that of depositors to the bank, and not that of the bank to depositors: debtors and creditors are exactly reversed and changed from the positions they occupy in banks to-day. My object in supposing the case was to demonstrate to an absolute certainty to American bankers that a bank deals always in coin or bank-notes, or both: and that the debt is merely the result of economizing the total of coin and notes, by means of a consolidated reserve; and to demonstrate also, in a very practical way, that the fallacy of supposing that a bank deals in debt comes from supposing coin to be a commodity. How can it be an ordinary commodity if one quarter of it can take the place of the whole? The first fallacy puts effect for cause; the second, cause for effect. The debt in which the writers upon money affirm banks deal, is the result of economizing coin and bank-notes: intangible units of valuation, purchase, and payment always result, even from the delivery of coin in pursuance of a bargain to a seller. As the result of the use of the coin by circulation is a valuation, purchase of, and payment for units of commodities, and the result of the delivery of the units of bank debt is the same, it follows that if one is a commodity the other must be also, and if one is not a commodity the other is not. The difficulty vanishes by fully admitting the plain fact, that the value of all money is conventional; therefore no money is, or by any possibility can be, a cause or end in itself; it is controlled by forces paramount to itself.

What banks in the United States deal in, therefore, to speak with rigorous accuracy, is the coin and bank-notes deposited by customers and others, — coin and bank-notes at great commercial centres, and bank-notes elsewhere, — which they are able to keep in circulation by means of loans for the purposes of production, in excess of the wants of their depositors, and so in excess of the loans their depositors can make. The result of this dealing by banks is, as to the debt they owe their depositors by virtue of their having deposited, nothing, because they owe their depositors the

same amount, whether they use any of their money or not, subject to the usual expansion and contraction of deposits; for there is a vast expansion of circulation continually maintained by loans, and the *necessary* result of all such banking and such producing is a commercial crisis followed by a contraction of deposits, unless some definite point can be fixed beyond which no loans can be made by any bank; and that point can be fixed only by a regulated reserve. Give the depositors the full benefit of the bank loans, by making them stockholders, because they are depositors, and allow them to overdraw, as in the case supposed, and we have precisely the same kind of banking as now, although some depositors are thus always debtors.

Hence I affirm, without hesitation, that our deposit and discount banking is only one among other possible phases of loaning money out of a consolidated reserve. Deposit and overdraft banking for the benefit of depositors as stockholders, where the overdrafts would cause the same expansion of circulation as loans by deposit and discount banks, is, as I have shown, the same banking in principle. The only essential difference is, that in the actual case the profits go to stockholders who may or may not be depositors; in the supposed case, to stockholders who are such only because they are depositors. The debt of borrowers is shown in one case by entry only; in the other, by bill or note. In like manner, instead of allowing overdrafts by depositors, loans by bill or note might be made them, the depositors being stockholders and having all the profits as before. The *real* use of a reserve in a bank of deposit and discount consists in refraining from using all the depositors' money. What appears in the reserve is the amount of depositors' money which banks have not used at all, or, if they have used, have returned. The reserve fixes itself in well managed banks of issue in a tolerably even average to bank-notes in circulation; it will not fix itself in a consolidated reserve, because there is in the law of numbers — the supply of units in the reserve being equal to the loss on the average — no natural limit to the expansion of circulation, except in the para-

mount causes which control the circulation of those units in the reserve by bringing on a crisis in the exchanges of commodities, and therefore of production, and as a result, of money.

THE BEST KIND OF BANK TO CARRY OUT THE PRINCIPLE
OF A REGULATED RESERVE IN THE UNITED STATES.

Inasmuch as the United States are not likely to fall back upon a metallic circulation of gold, or gold and silver, without banks, because they could not do it without disturbing the present distribution of gold, the true question is, What kind of bank is best adapted to the carrying out of the principle of a regulated reserve? A supply of metal in the United States suitable for maintaining a circulation like that of France would be enormous, and would seriously disturb the national ratios of metallic distribution throughout the commercial world. That distribution has been and continues to be greatly disturbed by the greater or less extension of banks in the countries supplied. The use of a consolidated reserve in England economizes, at the enormous cost of unsteady prices and commercial revulsions, a large amount of gold, and with the benefit of the unrivaled conveniences of banks. So is it in the United States, except that the ratio of economy in coin is much greater. Were the United States to resolve to give up banking, and establish a metallic circulation, then it would be well, perhaps, to remonetize silver, the general government receiving assayed silver bullion on deposit. But such a course is next to impossible. We shall retain banks with all their unrivaled conveniences, and, unless we perceive the necessity of regulation, with all their dangerous tendencies. Hence it is better to have a system of banks through which the first steps towards regulation can be taken on a return to convertibility. That system is at hand in the present national banks. The old state banks were, as banks of issue, taxed out of existence with inexcusable rigor, if now, after having accomplished their ruin, the general government does not proceed to establish the national banks upon a national footing by consolidating their

metallic reserves at a commercial centre, or at commercial centres. In this way the first step towards regulated reserve can be taken. The old fancy of regulating the issue of bank-notes issued from a multitude of banks, by means of a central bank, however large its capital, can never amount to anything but a fancy. The Bank of the United States never accomplished anything in the way of regulating the issue of bank-notes. A regulated reserve is the only possible regulator, as I have fully demonstrated; and such a reserve has never been found with deposit and discount banks. The true course, then, for the United States, if there should be wisdom enough in Congress and the executive government to discover what is really needed, is, in the first place, not to lose the monetary control, which has been purchased at the cost of very rigorous legislation, which never had the slightest justification but in the great importance of the result to be accomplished by it. That result is the "unification" of the currency. The unification can be completed only by redemption at a commercial centre. All the banks will thus, in respect to redemptions, be converted into one bank, while maintaining an independent existence for the purposes of local business. In the second place, Congress ought immediately to repeal the present law for the collection of national taxes now paid by the banks. I have demonstrated that deposits in the sense of a debt due by banks over and above the reserve they have to show are in a true sense so much money belonging to depositors; and to tax them is to tax production on credit, which the banks have by their loans permitted to take place. The money they lend comes out of their reserve; and that reserve is the property of depositors consolidated in one reserve, instead of being kept in their own reserves, and equal to all the calls which depositors can ordinarily make. The bank profits result from loans, but the averages of these are now small, because the volume of production is small. To tax the banks on deposits and circulation is to tax production, now at its lowest ebb, and in a state of comparative exhaustion, while allowing the state governments to do the same; the downward scale of production, and consequently

of prices, having now taken the place of the upward one, in obedience to a well settled law, already explained. These banks are also subject to a much higher rate of state taxation than those having capital invested in private banking, through higher rate of assessment, private banking capital being on the average assessed probably at less than half its value, that of national banks at full value. Such absurd taxation as that of the general government, and such unjust discrimination in state taxation, must necessarily tend to drive many banks to wind up. The true policy of the general government is to take off by legislation the taxes levied by the general government, unless the power of the states to levy taxes is taken away.

A fairer opportunity than can ever be expected to occur again, exists now, to establish banking upon sound scientific principles, by means of the present national banks. The difference in cost between a nearly full metallic circulation like that of France, where metal is but slightly "economized," and a circulation where metal is highly economized as in the United States, is of little importance in itself, compared with the thousands of millions lost by what is falsely called economy. It is not in order to save expense that the United States ought to continue its deposit and discount banking but because that system having been long established, and the natural distribution of metal through commerce, so far changed, it ought to continue undisturbed, and it can never be expected that the people who have long had the conveniences afforded by such banks will be willing to give them up. Unless the general government through congress, acting for the best interests of the United States, soon relieves the banks of national taxes, or, on the other hand repeals that part of the Bank Act which allows taxation of the banks by state governments, imposing, should it be repealed, only a very moderate tax on behalf of the general government in lieu of the present national taxes, we shall have state banking again in full. An amendment to the Constitution of the United States ought then to be obtained if possible, subjecting all banking to the regulation and control of con-

gress. The greatest dangers from banking lie, as I have demonstrated beyond reasonable doubt, in deposit and discount banking. This may be called banking by common law and common right. The right to bank is now unquestioned, and unquestionable, because it is the right only to loan a substitute which, as the commercial world and bankers and writers say, exists, in consequence of the banking (bank credit), and not to make or to issue additional money like bank-notes. The universal opinion seems to be, that banks deal only in what the public owe them and they owe to the public and to each other. If such be the general opinion, including writers on the subject of money, what is there, it will be asked, to regulate, unless an attempt be made to regulate trade itself? The question has abundant common sense in it, because it is backed by common opinion. The difficulty comes from not comprehending the difference between money not circulated and the circulation of money. If production for the purposes of sale were stopped, there would then be no such thing as money; there could be no conventional value, because there would cease to be any real value. Hence the use of money, which is the circulation of money, is inseparable from money, and for all practical purposes is money itself. Money, then, in its practical sense, is the use of a conventional process to pay for labor, commodities, and capital, and thus distribute them. They are thus exchanged, not directly, but indirectly, and very effectually. The payment of money, then, or in other words circulation, to pay for labor, raw material, and other commodities, and occasionally capital, is the object of bank loans. The process of loaning money by banks, to enable borrowers to make such purchases, *seems* to the banker, the borrower, and the scientist to be only the loan of a debt against itself, or some other bank, which soon, by assignment or redemption, effected by a check, appears in the shape of debt thus assigned or redeemed, and due from the same or another bank; the whole resulting in an equal expansion or an equal contraction of bank debt, and borrower's debt. This is all illusory, as I have clearly demonstrated. Debt is not what is dealt in, for it is the result and effect pro-

duced by circulation out of a consolidated reserve. If with a deposit and discount banking reserve of one hundred millions, one half metal and one half bank-notes, more circulation and therefore more production takes place within the same period than with one hundred and fifty millions of bank-notes and a reserve of fifty millions metal with banks of issue only, while production and prices, under deposit and discount, are in the rising scale within equal periods, then it is certain that the material question in what is called regulating a currency, must be, how to regulate the loans that can be made within the period. The illusion arises from not comprehending that what really circulates is money in the reserve; that nothing else can by possibility circulate, and that everything which pays for labor and commodities is money; that a bank can only deal in what it receives; that units of bank debt, granting that they were actually used as supposed, — and they *might* be if there were no metal or notes, — would be money precisely to the same extent as bank-notes, or even the coin in the reserve itself; and that all this excess and surplus of circulation, no matter whether we suppose it to be effected by units of coin, bank-notes, or bank debt by book, points with unfailing accuracy to an equivalent amount of production in excess of consumption, and consumption in excess of production; perhaps nine tenths of it the former and one tenth the latter. If a government or bank, in the absence of banks of deposit and discount, issues one thousand millions of irredeemable notes, paid out chiefly for hire of soldiers, their arms, equipments, and stores, what is rendered in return is military service, not of an ordinary, but an extraordinary kind; and the money when distributed through the community at large is therefore in excess of ordinary circulation. Excess of circulation above average, after this distribution, may or may not be the result, accordingly as an equal volume of metal and bank-notes is or is not retired; and so far it may or it may not stimulate production through rising prices only, *without the aid of bank loans*. The whole question then resolves itself into harmony of production and consumption. Taxes and tariffs are sometimes said to fall chiefly upon land,

first and last, but the assertion is true in this sense only : The consumers of products bought with money raised by tariffs and taxes must unavoidably consume more in proportion of the absolute than of relative necessities, when the production of the latter is in the rising scale, and economy compels them to this course where that production is in the falling scale ; all which is true of the community at large. Hence it follows that they buy most in proportion from the producers of absolute, and least from the producers of relative, necessities. Again, taxation is sometimes said to fall heaviest on manufacturers. This is true in no other sense than that already stated. All unproductive consumption, or consumption out of the ordinary course, like that of the consumers of products bought with money raised by taxation, disposes of a larger proportion, and therefore finds a market for more of absolute than of relative necessities, as happens with the majority of consumers. The true policy of the general government is to require the national banks to keep a consolidated reserve of at least twenty per cent. of metal at one or more commercial centres on their total debt, as well that due depositors as note-holders. In the case of private banks the rule would apply only to deposits. The general government ought to keep in a Bureau of Redemption the coin deposited for redemption of notes, and commercial banks ought to keep at such centre or centres the deposit reserve, or a definite portion of it. To make sure, or rather to make surer, the maintenance of the latter reserve, it ought to be kept in a single consolidated reserve or reserves, under the control of the clearing house of the commercial centre, and subject to regular inspection by officers of high grade, or upon an essentially similar plan. A plan for carrying out such a principle is given in another chapter.

GOVERNMENT ISSUES OF NOTES.

In answer to those who propose to leave the issue of circulating notes to the general government, it is enough to say that the general government can never perform the proper functions either of a bank of issue or of deposit and discount.

The proper business of all banks is to loan to producers of some kind, and producers are scattered over the whole country. By the demonstrations in this and other chapters it appears that the chief benefit of a metallic reserve is found in the maintenance of a fixed minimum ratio of reserve to liabilities in harmony with commerce. This cannot be kept by the general government unless it makes a fixed and limited issue or unless it turns banker. The proposition, therefore, resolves itself practically into converting the general government into a huge bank, unless the issues are to be made or rather allowed to remain outstanding to a fixed amount, bringing metal into circulation for the remainder. There would be no harm in the government maintaining a fixed issue of convertible paper, equal to or even in excess of the average of its annual holdings of metal; but it cannot go into banking, for it is impossible for any bank or banks to issue notes unless they are issued on loans to be employed in production, or in consumption with the prospect of balancing it by production, receiving notes or metal in return for payment of loans as fast as the products are sold for consumption. No bank makes any other loans, unless it cheats its stockholders, or is cheated so far by its customers or loses by bankruptcy. An occasional or a very limited issue by government, like treasury-notes in the United States before the late civil war, the maintenance of a fixed portion of the present issue in circulation, exchequer bills in England, and bank-notes issued upon government debt due the Bank of England, is unobjectionable. These issues were small in the United States before the late civil war, and are so comparatively small in England that for all practical purposes the circulation of England may be called metallic. In no other way than this ought the United States to issue more treasury-notes, and only for the purpose of supplementing the loss of gold. Deposit and discount banking, as we have seen by the foregoing demonstrations made in a variety of forms, consists in receiving money, placed to depositors' credit, and paying out money upon their orders, meantime loaning, say four fifths more or less of it; the money so loaned going

partly into circulation outside of deposit, and some of it circulating into and out of deposit. These loans can only be made by bankers, but government cannot possibly discharge the functions of a banker without having agencies in almost every village. This, therefore, cannot be the kind of banking expected of the general government.

But the general government might, with quite as much success, undertake deposit and discount banking as note-issue banking: a loan of bank-notes by a bank of issue is made for the same purposes as a loan by a bank of deposit and discount. An important difference between the two kinds of banks lies in the fact that the bank of deposit and discount does not own its reserve, the bank of issue does; the debt over and above reserve the former owes its customers is the *result* of loaning *their* money; the debt due note-holders by a bank of issue is the result of issuing its notes, but the reserve for redemption of notes belongs to the bank. While there is no *practical* limit to the loans of the bank of deposit and discount which keeps no fixed minimum ratio of reserve to its total deposit debt, a well managed bank of issue, in the absence of *all* banks of deposit and discount, cannot avoid keeping a minimum ratio of reserve to outstanding notes, because it has to redeem its notes out of a reserve which varies only with the metal of the commercial world in the shape of coin. The commercial world's coin varies only with commerce and not with production, and so does the reserve of the bank of issue.

As the general government, therefore, can do no banking of any kind, the only course left is to put the national banks in the way of doing the most of the banking business of the country by fair and judicious legislation. It is of vastly more importance to the country than the banks that this policy be pursued. The general government can no more furnish banking facilities, either in the way of bank loans or loans of notes, than it can go into the manufacture of cloth. The business must be done by banks: banks take the risks of producers of all sorts to whom they lend, except as to the rate of profits that is fixed by discount. In other respects

they take the risks of trade. If the national banks, through popular prejudice or ignorance, are forced for the most part to liquidate and put their capital into private banking, or banking under state organizations, the immediate gain will be theirs; the ultimate loss that of the people at large.

A well regulated system of banking, which can now be had by justice and equity towards the banks, will be worth more to the United States than a thousand times all the taxes that will ever be paid by them, whether to the States or to the general government.

But wherein lies the essential difference between banking in England and the United States? Bank-notes without any fixed ratio of metallic reserve to circulating notes are in use in the United States when convertibility exists, and will probably be the currency in the United States after the return to convertibility. If the national bank-notes are made redeemable at commercial centres in coin, they would — were there no deposit and discount banking — be not only redeemable in gold, but actually redeemed in gold, because they could not be deposited. But as there is and will be deposit and discount banking everywhere they will be mostly redeemed by exchanging them for a deposit in commercial banks, and these banks will mutually redeem each other's notes, as they always have done in the United States, by receiving them into deposit, and, sooner or later, giving checks on commercial centres in exchange for the deposit. These checks are paid in bank credit which is a substitute for the first. But no gold is actually paid out in either case: the first deposit gives a right to draw gold or bank-notes — practically bank-notes — from the receiving country bank, and the second gives a recognized right to draw gold for the most part, there being in most banks gold enough to cover all payments. It follows that bank-notes in the United States, even under the most perfect convertibility possible under deposit and discount banking, are not kept in any definite ratio to the commercial world's gold, because they are not redeemed in it; they are redeemed at best out of a fluctuating metallic reserve whose volume is controlled by bank credits,

and hence by production : the variation in the reserve is directed and controlled by the paramount force of production through bank loans instead of the actual exchanges in a consumer's market.

Wherein will this last banking differ substantially from English banking? The difference will be substantially the same as between English banking before 1844 and English banking since 1844. This difference consists in the fact that there was in England, before 1844, a double variation : first, the variation in the circulation of metallic banking reserve, and, secondly, in that of metallic bank-note redemption reserve, from the circulation of the commercial world's gold, because the latter (in France, for instance) circulates only in exchange for commodities in a consumer's market, which is the market of true commerce, and in exchange for labor, only to supply that market ; while the former circulated in reserve, in exchange for labor to supply production indefinitely, and in exchange for commodities (largely absolute necessities to feed and support that labor whose product found no market), thus expanding circulation through loan largely in excess of that contraction of circulation which comes by payment of loans. Both these variable reserves were made more variable in respect to the extent or volume of maximum and minimum prices (but caused no greater volume of production to take place) than would have been the case had the currency been entirely metallic before, as it has substantially become since 1844. The range of variation in nominal prices was therefore relatively greater before than it has been since 1844 : the nominal average price was greater before 1844 ; the real price, relatively speaking, was the same.

This accounts for the *relatively* higher prices in the United States, since 1844, than in England. What is the effect of these relatively higher prices upon producers, especially those who are protected? If the whole commercial world had no currency but gold and silver distributed everywhere by commerce, and no banks, and no debt of any kind whatever, to double the total of silver and gold in each holder's hands by

increasing every coin to two coins of like weight with the first would bring neither loss nor gain to anybody. The purchasing power or value in exchange of the two coins would be the same as that of one of them before, and total purchasing power would continue the same. In like manner, if the number of coins were reduced one half, the purchasing power of the remaining half would be the same as that of the whole before. As total purchasing power is exactly the same under all changes, all variations in mass of the two metals existing as coin (whether the same or different in the two metals), relatively to the absolute and unvarying total of purchasing power, can make no possible difference. The more of either metal going into plate and other uses than money, so much the less in weight goes into coin, and so much greater the relative purchasing power; the less going into plate and other uses than money, so much less the relative purchasing power of that part going into coin. Gold and silver being still supposed money everywhere, purchasing power, which is always one and the same invariable total, would be by this action and reaction mutually divided between them. A relative increase in gold or a relative increase in silver, if suddenly occurring, would not affect the commercial world, because total purchasing power would remain the same. All this comes from money being a series of units of value, or a conventional commodity. A gradual change—and there is in fact no other—can therefore certainly do no injury. Hence it might be supposed any artificial increase, through banking, in the volume, which means the total number of units of the conventional commodity, money, circulated, as compared with units of commodities in the United States, afterwards shipped and exchanged through units of money in England for English goods, in Liverpool, Manchester, or elsewhere in England, and afterwards imported into the United States, and paying duty, would not make the imported goods necessarily cheaper relatively in the United States, reckoning in American currency, than American goods of the same sort. But the problem has some very complex elements through banking. The

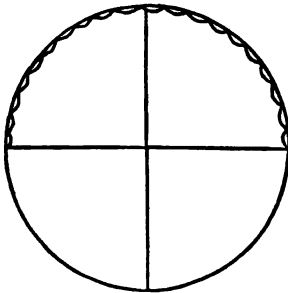
American currency is convertible into and therefore on a par with gold, while British currency is substantially gold itself. British gold is depreciated relatively below the commercial world's gold in France, where there is but little deposit and discount banking, because its circulation has been, through that kind of banking, without any regulated reserve in Great Britain, made to vary, not as the commercial world's gold varies in France, according to actual exchanges in a consumer's market, and production to supply that market, but according to the mercantile market for goods in overstock and the production which supplies that market, while in the United States gold is depreciated further by a bank-note currency convertible only into gold in a reserve which varies in a similar manner. The latter variation in the United States is largely increased by the expansion of bank-note circulation,—an expansion which can be checked, but only approximately, by convertibility into gold in a bank-note-redemption reserve, supplied by the commercial world's gold, freely circulating outside. This depreciation in gold in the United States, as compared with gold in England, and still more in France, operates to make metal in coin as well as bullion a profitable article for export, and it also follows that the articles exported, which being valued in the foreign market (wheat, for instance) lose, like gold exported, the benefit of the expanded home circulation before being valued abroad. This depreciation of the articles exported is counterbalanced to the producer in the price of those which are not exported, and thus the cost of living is enhanced to the American producer to the precise extent by which it is cheapened through the wheat and other articles exported to the foreign producer. In this way the American producer loses the benefit of much of the protection which was intended for him, through the immensely complex results of deposit and discount loans. The protection of a steady currency would be worth more to him than such protection as he gets.

If banking were generally established in France within one year after resumption of payments by the Bank of France,—assuming that banking could be generally established within

so short a period, — seventy-five per cent. of the gold and silver deposited could be sent for loan to England or the United States, or retained and loaned at home. In either case the French banks would convert seventy-five per cent. of their deposits into loans. These loans would there represent so much money invested in additional production, whether they were made to merchants or not, because they would furnish the means of paying labor and capital to produce to that extent where additional production was possible by the aid of the loans. But it would be banking reserve all the time that would make the payments to depositors as often as they demanded their money, because the same reserve would be continually replenished through deposits by those who had received the money which had thus been paid out. The reserve being now by supposition twenty-five per cent., the banks could continue to loan until it reached twenty, eighteen, and at last sixteen per cent. or less. Meanwhile the daily difference between the outgoing current of payments to depositors and the incoming current of deposit would be small, although the foundations of a banking crisis were being laid. If “clearing” were in use, appearances would indicate that the banks were dealing in their own debt due depositors, but the appearance would be deceptive. The banks would be dealing all the time in the reserve, because, as demonstrated in former chapters, the reserve is, in its character of a consolidated fund, capable of making the same number and the same total amount of payments which the total of deposits could do in the shape of either metal or notes in the pockets, tills, and safes of depositors. Banks of deposit and discount do not deal in their own debt; it is impossible for them to do so without becoming banks of issue. It had been well for the United States were it true that banks of deposit and discount deal in their own debt, for in that case discounts would have been always limited by banking reserve, instead of the latter being limited by the former. All money being but a series of units, limited in circulation either, on the one hand, by the commerce of a buyer’s and seller’s market, as with a

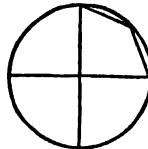
metallic or metallic and bank-note currency, without banks of deposit and discount, or, on the other hand, by a seller's market, as with banks of deposit and discount which have no limits but a banking crisis for loans, the use of money is itself but a kind of conventional credit. Because all money, whether metal or paper, is such a series of units, the reserve has the same efficiency in bank as the total of deposits could have in the possession of depositors. The reserve having such efficiency, to invoke the aid of bank debt would be superfluous, even if it were possible. Such is the difference between the monetary system of France, without banks, and the monetary systems of Great Britain and the United States, with banks. Representing by a circle the production of absolute, and by a polygon inscribed within it the production of relative necessities for each country, the production of relative necessities in France would require a polygon of many

sides touching the circle at short distances, while that kind of production in Great Britain would require one touching the circle at



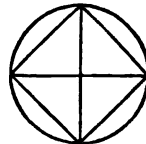
FRANCE.

Inscribed polygon of 40 sides by supposition



GREAT BRITAIN.

Inscribed polygon of 8 sides.



UNITED STATES.

Polygon now reduced to inscribed square.

a comparatively small, and in the United States still smaller, number of points.

To bring the present monetary system of Great Britain as near as possible to that of France, a fixed ratio of reserve to bank debt in the shape of commercial deposits is essential, whether it be fixed and afterwards maintained by a universal banker's league or by law, or both. For this purpose the functions of commercial and savings banks ought to be separated, for the deposits and redeposits of commercial banks are themselves a large portion of the monetary exchanges of

commerce. They are the payments made by consumers to retailers, by retailers to wholesalers, and occasionally by wholesalers to each other. To regulate bank loans by reserve is to regulate them by deposits of this character, that is to say, by the market of consumers who have exchanged products, and not the market of producers only. The deposits of savings banks are not, except to a slight extent, of this character. The present volume of paper and metal in Great Britain is probably sufficient or nearly sufficient, under a regulated banking reserve fixed at a ratio of twenty per cent. ; and in case of deficiency, fifteen millions of pounds of additional paper or metal would be ample. But the great difficulty to be surmounted would be to maintain the system of a regulated reserve, either in Great Britain or the United States. In both countries it ought to be metallic, because, as already shown in this chapter, the redemption of notes in coin in the United States out of the commercial world's stock moving into and out of reserve, and circulating freely with bank-notes outside of banks, — a condition essential to metallic limitation of their volume, — is arrested by the facility of depositing with the nearest banker. The deposit of the notes is itself a redemption of the notes, although not in the commercial world's coin, for the banker who receives the notes becomes liable for the amount deposited, and thus each bank virtually redeems for all other banks. A weak bank, like the Scotch Bank of Ayr in Adam Smith's time, when there were none but banks of issue, immediately demonstrated its weakness by purchases of metal at a large premium in London in order to maintain the redemption of its notes. It was compelled to stand by itself ; and when it could stand no longer, because its capital was exhausted, it failed, involving no other banks in its ruin. But deposit and discount banks, whether they have the function of issuing notes or not, perform the first act of redemption for all banks of issue in the manner stated, by receiving their notes on deposit, and complete the redemption by checks, drafts, and bills, upon commercial centres, in discharge of the liability thus assumed. Nor are these checks, drafts, and bills paid

out of the commercial world's stock of metal, but out of the metal in a fluctuating reserve. In the absence of all deposit and discount banking, on the other hand, the notes would be paid, as in the case of the Bank of Ayr, out of the commercial world's stock at large, and overissues would soon bankrupt a bank. The metallic limitation of convertible bank-notes, in the absence of all deposit and discount banking, is thus approximately perfect, but imperfect where deposit and discount banking prevails. If regulation of reserve in deposit and discount banks is impossible, the only method of maintaining a metallic limitation of bank debt in any form, is, therefore, the suppression of all but note-issue banking. Adam Smith's assertion that bank-notes, always redeemable in gold and silver, could never exceed in volume the metal whose place they took, has been accepted as true by most writers, although he never proved its truth. It is, however, approximately true, because these metals are the money of the commercial world, and the addition in volume to the total of that money, caused by the Scotch bank-notes of Smith's time, could scarcely have amounted to the half of one per cent. But even with this qualification he failed to prove his assertion. He brought forward the case of the Bank of Ayr to prove that overissues by any bank would in time bring on bankruptcy, but did not define overissues, nor point out how they were to be avoided. I have shown what overissues are, and why they cannot, on the whole, be carried very far by banks of issue only. But the writers since Smith take his assertions, which were made in reference to the banks of issue of his time, to be still applicable to the banks of our day, which, so far as they are banks of issue, have that function in addition to those of deposit and discount. While, however, there can be no excess of redeemable bank-notes for the purpose of buying labor, even under deposit and discount banking, there may be an excess for other purposes. Calling the circle in the foregoing diagrams the line of production of absolute, the inscribed polygon in the case of France may be called the series of lines representing the production of relative necessities. The

movement of the loans made to be applied towards the latter kind of production may also be represented by the same polygon in the case of France. The bank-note circulation of France to-day, and of Scotland, in Smith's time, may also be represented approximately by that polygon, which, touching the circle of absolute necessities at short intervals, regulates all production, and consequently the distribution of all commodities and capital, and the circulation of all money, at equally short intervals, by that circle. This circle represents the production of absolute necessities which never can be in excess; the inscribed polygon that of relative necessities which may be in excess. The aim of all currency reforms should be to increase the number of the sides of the inscribed polygon so as to make it touch the containing circle as often as possible. All practical political economy, not only for Great Britain, but all the members of what is called the Anglo-Saxon family, lies in this direction. The same kind of banking prevails in Great Britain, the United States, the Dominion of Canada, and Australia. The great principles of social science are, in all its branches, the same for all countries, but there seems to be an exuberance of productive energy in the members of this great family. What is needed for all of them is to regulate that energy by bringing the application of it in the production of relative into harmony with that of absolute necessities, so that there shall be no loss through misapplication of productive power. Strange and new as it may sound, the only point where anything can be done towards this end is in metallic banking reserve.

Such energy of production needs not the stimulus of unrestricted bank loans, even supposing that stimulus to have the effect of quickening into life, and not of quickening, only to kill afterwards. Their laborers need steady employment and steady wages, and these they can have only by steady production. Prior to 1873, when railroad building was at its height in the United States, all the iron workers of Great Britain and the United States were needed to supply rails at high prices, but now those of the United States can more than supply the demand at low prices, and so of other prod-

ucts. By waiting a few years longer, the same amount of iron would have found a market, and the same number of railroads would have been built at average instead of high prices. The want of the time for all nations, and especially for Great Britain and the United States, is to bring production on credit, and thereby employment and wages, towards the line of production of absolute necessities; to change the inscribed square of the United States and the eight-sided polygon of Great Britain, to a polygon of many sides, touching the circle so often that for all practical purposes the two might be regarded as one. The true nature of money and of banking are not yet understood, and time alone, — probably enough to cover another cycle of progressive expansion and contraction, of production and circulation, — after sufficient examination, will bring regulation. The first step is to learn that paper money, if the holder were properly secured beyond reasonable doubt, would answer all the purposes of money everywhere, provided it were impossible to issue it in excess of commodities actually consumed: the very fact that paper constitutes so large a portion of the money actually used is a standing demonstration of the truth that all money, including gold and silver, can by no possibility be used as money except in the character of units limited and localized, and that there can be no such thing as barter where money is paid. The most important advantage, then, offered by gold and silver as money, is that they have been distributed throughout the world in exchange for commodities, and the quantities annually mined are always small in proportion.

Because gold and silver have been thus distributed, they can be redistributed from time to time only in exchange for commodities, unless borrowed occasionally, when they have been accumulated in treasuries or banks. It is, therefore, a matter of demonstration beyond reasonable doubt, that they furnish the steadiest possible circulation and therefore prices. Hence, when they are used as banking reserve, their office is, in point of fact and of science, one of limitation: their proper function is, to limit the circulation or distribution of money by the same rule by which they have been themselves dis-

tributed, — the actual commerce and consumption, and not the mere production and sale of commodities.

Deposits, including reserve, belong in point of fact and science to depositors, although in point of law they belong to the banks. Banks and depositors treat them as belonging to the latter, although, in order to extend legal protection to depositors, they technically belong to the banks. The fact that comparatively small sums are actually paid out by banks for the purpose of going into circulation, under the labor-saving process of "clearing," has helped to create an entirely erroneous idea of the true nature of banking and bank loans. A bank can no more deal in its credit as distinguished from reserve than — as I have stated in the dedication of this work — a house can stand in the air without a foundation. A bank receives the largest portion of its deposits from the mercantile community, and it receives more or less from producers and consumers generally. All bank deposits came originally from what constituted the circulating money of the country, and this was made up of gold, silver, and bank-notes. These still constitute circulating money for the most part. To suppose that dealers whose checks constitute the items of the commercial part of clearings circulate units of bank credit without any reference to and without any limitation by the reserve, while the circulation outside of the banks consists of the same kind of money as the reserve contains, involves what, upon a moment's reflection, seems to involve a practical absurdity. It is impossible to make one part of the exchanges of home commerce with one kind of money, and another part with another kind of money: the volume of money used in one part must have some connection with that used in every other part, and with banking fully developed, the only connection between the exchanges cleared and those outside of the banks must be through the reserve. But there can be no such connection, unless the reserve actually makes all the payments.

It makes them, in point of fact, and clearings are only the register of the payments.

CHAPTER VII.

REDEMPTION OF CURRENCY.

THERE is a fallacy involved in the assertion that bank-notes, to insure stability and prevent inflation of volume and fluctuations in prices, ought to be redeemable on demand in gold, because gold has *intrinsic value* as a commodity which paper has not.

Of all the fallacies that have concealed the true object of making all currency redeemable in gold, or gold and silver, if the latter were generally remonetized, this is the most potent and probably the most difficult to eradicate, if indeed it be possible to eradicate it at all. But asks a banker, How can it possibly be a fallacy? If the government stamp were taken from gold to-day, would it not be worth its weight in gold to-morrow, always and everywhere? Has a bank or government note, on the other hand, any intrinsic value whatever if the promise were taken off its face? These questions, which I have thus put in the mouth of the banker, are quite as strongly put as he could put them himself: they embrace the whole case for the theory of intrinsic value in gold coin as a commodity, while still money, and of the absence of intrinsic value in bank-notes. Before I answer these questions the banker may ask a third: Of what importance is the answer to the questions, for the science of money and exchange?

I proceed to answer the first two questions, and the answer may furnish some facts to enable me to answer the third question. I have already answered these questions elsewhere, and the sum of the answers is briefly as follows: Things that are equal to the same thing are equal to each other, and that same thing to which each is alike equal is

equal to each, and all are on a par of extrinsic value. A dollar note, on a par with a gold dollar, is exchangeable for the same amount of wheat with the gold dollar, and each is the equivalent of the same quantity of wheat; and therefore the paper dollar possesses the same intrinsic value as the gold dollar *while both are money*. Ah! says the banker, but you are arguing in a circle: suppose the government stamp off, and the gold dollar bullion: it is then worth within a fraction of what it was before, and possibly it may be worth more, if bullion is in demand. That is all true, my good banker; but if I am in the circle, you are out of it, for you have taken your dollar out of the money circle, and converted it into bullion, so that it cannot circulate at all, because it is no longer money: it is only the material out of which gold dollars and other gold coins are made. My argument related to the gold while coin and not bullion. But says the banker, The stamp can be replaced on the bullion for a trifling expense, and the bullion converted into coin again; but the stamp and signatures on the notes alone give value to the note, and notes of that kind can be made for the very trifling cost of paper and printing; but the gold costs labor to the extent of its value. Suppose, I reply, Mr. Banker (to carry the investigation farther than I have heretofore), that your government should demonetize gold and monetize silver, platina, or any other metal in its place; what becomes of a considerable portion of the intrinsic value you have been talking about? Suppose, also, that in such a case your government, to prevent loss to individuals, should redeem gold with silver, provided the new silver dollars were worth as much as or more than the old gold dollars. Would not this be redeeming gold with silver? By this very act, however, the nation would suffer loss, because the government would loose by the depreciation of the gold and appreciation of the silver. This last reason the banker indorses. But stop! Am I not entrapped now by this same old fallacy of superior intrinsic value in the gold dollar over the paper dollar? Surely I am, for who has lost, or who has gained? Is it not certain that the intrinsic, that is to say the exchangeable, value

(for intrinsic value is exchangeable value) lost by the gold throughout the commercial world — and gold is the money of that world — is carried over into the silver? And if no part of the commercial world loses anything, the government and people causing the demonetization have lost nothing; it has only deranged the monetary exchanges. But intrinsic value in gold represented by a very large amount of labor has been annihilated by a short legislative act, the meaning of which is, — The people represented by this government have concluded to demonetize gold and annihilate its whole intrinsic value as money as well as its intrinsic value as a commodity by a considerable ratio, because they think it for their interest, and the annihilation costs less than the printing, signing and issuing of notes to take the place of an equal amount of the annihilated intrinsic value of the gold.

But says our banker, This demonetized gold can be taken to other countries, and it is still good, while the paper is not. Granted, say I; but suppose all other governments to conclude that they will get a steadier volume of silver than they can of gold money units in consequence of this first demonetization by one government; and therefore (more especially if the production of gold should happen to be on the increase) all nations demonetize gold and remonetize silver; an enormous loss, probably seventy-five per cent., would fall upon the holders of gold, but not one cent of loss upon the nations; total values would be precisely the same, because *all* the intrinsic value in the gold, AS MONEY, is carried over to and embodied in the silver, at less cost, perhaps, than issuing so much paper. Gold, as money, no longer possesses one cent of intrinsic value, but it possesses considerable intrinsic exchangeable value as a commodity; and here, at last, is the only intrinsic value possessed by gold superior to other metal and to notes; but *as money* it possesses no more intrinsic value than any other money at par. This whole matter of money is conventional, then, after all: one kind of money is as real as another if it will exchange for as much. By the clearest demonstration, then, it appears that a government paper dollar, a bank-note dollar, a credit dollar, and a gold

dollar, are equally money whenever they are taken as such, at any given time and place, and the ultimate and real redemption of all money is by commodities. A gold dollar, like a paper dollar maintained at par, represents nothing but itself *strictly* : it is a conceded demonstration in the holder's hands, universally acted upon, of the right of the holder to obtain in exchange values, of which it is the measure, and which measure also its value, — the quantity of money offered for sale determining the value of all other units of things in market as expressed in price, and these units determining the value of money as expressed by quantity of money units offered. Money, therefore, *as money*, has no intrinsic value as a commodity ; it is no part of productive wealth, because it must be got rid of and exchanged before any productive value of any kind can be obtained for it. It is a great power, nevertheless, to get wealth, and might well be taxed, provided real capital itself could be exempted to an equal amount ; but it is not, and therefore there is double taxation of actual wealth, that is to say, of production, by the taxation of money, for the total of money calls for a total of productions equal to its total volume which has been delivered by the holders of the money personally or representatively to the rest of the commercial world. A stockholder in a national bank, therefore, who pays a state tax on the par value or more of his stock to a state government, while others, not stockholders, pay taxes on only about one third of their productive property, and whose bank, also, after paying a tax on circulation, pays a tax on its debts in the shape of deposits which are in effect powers of record to put in circulation gold or bank-notes to an equal amount, is taxed four times as much as his neighbors who are not stockholders, because they pay no tax to the general government. It would seem to be the intention of the state and general governments, therefore, to tax these banks out of existence and restore the state banks by the same kind of process that heretofore taxed the state banks out of existence and gave the field of circulation to the national banks.

The deposit, so far as the depositor actually uses it, is a

power equivalent to a like amount in money: it is an admitted demonstration of the depositor's right to circulate a like amount of money. The power belongs to the depositor, and not to the bank. Whatever furnishes this demonstration is money, because that money is used at all, is entirely conventional, and convention has the right to adopt any form of demonstration it pleases. The national form is the equivalent of the international, in the home market. But says our banker, Is it just that the unfortunate holders of gold should lose seventy-five per cent. of the intrinsic value of their gold by demonetization, while the nation, as a whole, loses nothing, because silver gains what gold loses, the losers sharing indirectly in that gain only to the amount of a very moderate percentage of their loss? By no means, I answer. The governments should exchange with them. The governments should buy silver, coin it, and exchange it with the holders of gold, and the loss should be distributed upon the nation. Loss, did I say? I have been entrapped again by the old fallacy. There will be in this way no national loss at all. The effect of this equitable proceeding is merely to distribute back to the holders of gold *alone* all the gain the nation has or could have made by the monetization of the silver. Not to do this would be robbery, and nothing else, for there would be no national gain or loss, either way. But this last act of equity has left in the hands of all the governments the total of the commercial world's gold coin. If thrown all at once upon the markets of the world, its exchangeable value will be proportioned to its quantity. Every pound of it can be sold, because every pound of it can be used, and there is no danger of deterioration. But if it is all thrown upon the market at once, it can hardly realize ten per cent. of its former value. Therefore, to avoid this immense loss, it ought to be sold very slowly, as the demand for it may determine, and thus be gradually distributed through all parts of the commercial world. But stop! I have been entrapped again. There will be no difference by and by, nationally or internationally, between the two plans. If the metal is all sold immediately to the highest

bidders, especially should there be "rings" of purchasers, great profits on the rise of the commodity will be made by the first buyers, and less, but still great, profits by those to whom they sell, — and so on, until the whole metal is sold and distributed in articles of convenience and luxury. It will, therefore, be most equitable to sell slowly, according to the demand, and thus distribute the gains. These gains will not be imaginary, but really, and not theoretically, intrinsic. Actual wealth, great utility, and civilization itself, will be highly promoted by the demonetization. Great intrinsic value is now possessed by gold *as a commodity*, but none *as money*; in fact, a considerable portion of its supposed intrinsic value as coin has been carried over to it as a commodity. Its value as money was wholly conventional; its value as a commodity is real, and independent of convention. Its intrinsic utility makes it valuable. We have, moreover, learned a very important truth, if we are only able to carry it always with us as a touchstone against fallacies: what we called intrinsic value of gold as a commodity, while it was money, had nothing to do directly with its intrinsic value as money, for the demonetization shows us that the intrinsic value of all money is conventional, and dependent upon the fact that it will, by virtue of convention, founded on the necessities of society, exchange for everything else; and if convention has made a paper dollar buy the same amount as a gold dollar, each has conventionally the same value, and neither can have such value at all except conventionally. The same demonstration must necessarily include a dollar of bank credit, if that will procure as much as the gold dollar; the fallacy that entraps the understanding in the latter case being that certain instruments and certain debts are assumed to have all a like effect, when they do not, because not used alike. A check is, for instance, an instrument which is a voucher to a banker to deliver gold or notes, or to transfer or cancel credit, the precise equivalent of a like sum in bank-notes, and when canceled and returned to the drawer it is a voucher of payment accomplished. Again, large amounts of savings bank and private

bank, and private or individual deposits, must be eliminated in ascertaining the total volume of credits that have merely taken the place of like amounts in bank-notes. In a *strict* sense, deposit credits are not money ; they are powers to put in circulation the money of a common fund. But asks our banker, Is not the money unit in the shape of a tangible gold dollar now carried over to the silver dollar ? Can there be any money unit that is not tangible and valuable also as a commodity ? If there cannot, how can a paper dollar, much less a credit dollar on bank-books, not tangible like a paper dollar, and existing only in imagination, be called money ? Is the dollar, the pound, the franc, and the guilder, a thing of the imagination, or is it a reality ? I answer that the foregoing demonstration furnishes the answer to all these questions. Because the paper dollar commands the same value as the gold dollar, that is demonstration clear by the very fact that the moment money intervenes, the money-unit is ideal only, and it necessarily must be so with all money. If a bushel of wheat were the unit agreed upon in the United States, there would be actual deliveries of wheat as money, while there would be many deliveries of it as a commodity. The bushel of wheat being agreed upon, the term, without the actual presence of any wheat, at once suggests the unit and its value, and the unit of wheat could be carried over to anything else and called unit of weight or unit of measure, the new unit taking the place of the other, and being exchangeable for the same amount. The value of wheat as a commodity would be merged, like the gold, in its value as money ; but inasmuch as it is an article of prime necessity, and not like gold only relative to civilization and progress, and being every day consumed, while but annually produced, the frequent variations in the quantity in market would lead to great expansion and contraction of volume, and unless notes calling for wheat were made payable at tide-water there would be a difference in exchange varying from ten to fifty per cent. or more.

The money units I now suppose to be bushels of wheat containing a certain number of pounds instead of weight-

units of gold. Either the wheat or the gold might be converted into units of measure instead of weight by making the unit of wheat call for a certain measure of wheat, and the unit of gold for a cylinder of a fixed diameter and depth. The decimal principle might be applied to either or both; and as the standard of weight would be adopted, because most reliable and least variable, a hundred pounds of wheat taken as the unit instead of the bushel of sixty pounds might be called a cental of wheat, or, to save words, a cental; and in like manner now (gold being still the United States standard) a piece of uniform weight, to be known by one name implying a unit of weight, ought to be universally adopted by all nations. I now suppose the cental of wheat, or the cental, as we may call it, to be the unit, and we shall soon see that the reserve against notes, if issued, is exceedingly variable within short periods, but not upon long averages; there is also a great variation in volume of notes and credits, as there always is in the United States even with a gold reserve. These two sources of variation render the money intolerably variable, and the reserve wheat over and above what is consumed at home and can be consumed immediately abroad is exported in large quantities, because, although sent to a market not absolutely needing it, it will bring more abroad than at home.

CONSEQUENCES OF ADOPTING THE CENTAL OF WHEAT AS THE MONEY UNIT.

The cental of wheat being money as well as a commodity, is, while in reserve against notes and bank credit, although still called money, in reality but merchandise, because it does not regulate the volume of notes and credits by any fixed standard.

There is but one way to get rid of that source of variation, and that is, to keep a reserve of wheat centals in a constant ratio with notes and credits, because by this plan the notes and credits will vary at least as all wheat varies. This plan adopted, but one source of variation is left, and that is of wheat: the notes and credits now vary only as wheat varies;

and the intrinsic value of wheat as money, and therefore as a commodity, is reduced in proportion to the total of notes and credits outstanding precisely as the intrinsic value of gold as money and therefore as a commodity, is actually reduced throughout the commercial world by the substitutes in the shape of paper and credit dollars, pounds, etc. (The intrinsic value of wheat as money entirely controls its value as a commodity; in short, it is absolutely impossible for it to possess any intrinsic value as a commodity in excess of its value as money. But the ratio of its value as a commodity has been, in fact, enormously depreciated after making it money, through the issue of notes; and if demonetized its intrinsic value as a commodity would rise much above its former value as money, and this renders it wholly unfit for money, because the consumption of it continually as a commodity makes the annual variations too great. It is, therefore, demonetized, and silver units of weight take its place, perhaps with the old name of cental. No loss arises in this case any more than in the former, but on the contrary a benefit, by the restoration of the natural equilibrium of prices among the necessities of life.) After a time, however, the ratio of increase in the quantity of silver is found to be too great to continue it as a material for money, and some method having been discovered to make paper centals vary with commerce better than silver had done, the silver centals are all redeemed by the government with paper centals issued in their place, upon the same principle by which the banks of Venice and Amsterdam redeemed, — that is to say exchanged silver and gold coin with credits in bank, which they were able to do for the sufficient reason that the total volume of their credit money was never carried above that of coin; and the credit was more valuable than coin by reason of the law, the convenience, and insurance against loss by defaced and short weight coin. The value of the unit of money, therefore, in all cases, lies in what it exchanges for and not in itself. Hence it is wholly conventional and therefore wholly ideal. But although ideal, it is not without any limitation of the number of units. It is limited either by the material which supplies the units or by commodities.

WHAT REDEMPTION OF A CURRENCY IS.

A redemption of currency is an exchange of it for another. We have seen that demonetization on a national or international scale is merely the abandonment of one currency and exchanging it for another, without loss to anybody, the holders calling upon government to redeem it by giving them something else, whether it be in the shape of pieces of some other metal, or paper promises, wheat, etc. The redemption in wheat cost the nation nothing, for the holders of the metallic money were by virtue of their money the owners of productions to be received to that amount, having previously exchanged productions for the metallic money, — the purchase and delivery of wheat to them by the governments, in exchange for their metallic money, being the same thing as if they had all purchased wheat in the market with their metallic money, instead of an assortment of other productions, without any redemption of the metallic currency taking place through act of government at all. In like manner the redemption of the wheat centals in silver centals, and the redemption of the latter by paper centals or promises of centals (it is a matter of indifference which they are called), cost the government nothing. Now, if some base metal, not exceeding gold in mass and weight, of durable qualities, but of no utility or value, should be discovered, and weight or measure units called centals coined from it, it would be a good and durable coin to redeem the paper with, provided it could be mined, smelted, and coined fast enough to increase with the world's commerce, but no faster; and it would not be subject to the variations of the paper centals, and for that reason and durability alone it would be better than the paper, neither of them, however, having any "intrinsic value" whatever. Hence it appears that the "intrinsic value" may be taken out of money altogether. But is it not now manifest that there never was any intrinsic value to take out at all? Is it not now certain that, instead of *intrinsic*, the value of money is *extrinsic*? Is it not clear that all value possessed by anything must be extrinsic, for

does not value imply that the thing to which value is imputed must be valued (that is to say, measured) by something (that is to say by anything) else for which it is exchanged, the latter constituting the value? Therefore it is certain that there is no such thing as intrinsic value. The very term implies a contradiction in terms. Intrinsic value vanishes into intrinsic utility, greater or less; either absolute (that is to say, absolutely necessary, like wheat, to sustain life), or, like gold, relative (that is to say, relatively necessary to civilization in the way of arts, or in the way of comfort and convenience, as in dentistry, etc.). The absolute utility of wheat rendered it wholly unfit for money; the relative utility of gold made it the best possible material for money, and to regulate the volume of all substitute money. All the gold in the world has utility, because it can all be used, but at the same time it can also be dispensed with; and therefore, as its exchangeable (that is to say, its money) value becomes less by the increased ratio of its production (the ratio has been one of decrement, but will probably soon be one of increment), and still more by the use of paper and credit substitutes, the ratio of utility comes into operation, and checks more or less the ratio of increment. The latter ratio has enormously increased of late years by the substitution of inconvertible paper in large amounts in the United States for convertible notes, and a corresponding increase of credits. The mischief was enhanced in the United States by two auxiliary causes, one of which could have been avoided, the other not.

The voidable cause was the making government debt and interest payable in gold. As a political measure it might have been well to make the two or three hundred millions of government debt first issued payable in gold, in order to locate it in foreign markets, because this would call into action a powerful political influence abroad in favor of the government; but after that, all debt and interest ought to have been made payable in paper, in order to retain as much gold at home as possible; not because it cannot be recalled on a return to specie payments, but to avoid, as far as pos-

sible, the inevitable depreciation of gold throughout the commercial world resulting from loss of our stock on hand and the larger part of our annual share for years. The unavoidable cause was the feeling of doubt as to results, culminating at the battle of Gettysburg, running up the premium on gold to enormous figures, and keeping it at high figures during the war. This was beneficial in one respect, because it encouraged home industry by discouraging importations; but the benefit was partially counteracted by the enormous increase of bank loans to extend the new industry thus called into being, the enormous increase of production, and the consequently enormous volume of money-units put in circulation by means of bank loans in the shape of notes and credits.

THE MEASURE OF VALUE IN PRICE AS REGULATED BY
THE MAINTENANCE OF PURCHASING POWER.

It results from this demonstration, and the demonstration I have elsewhere given, that price is the ratio of all the money in market paid to all the goods in market bought; that money constituting the units of value and the goods the units of quantity valued. The immense number of money units kept in the market by means of bank loans up to 1873 in the United States, raised the expenses of living to such enormous figures that our gold and silver were largely exported, and a large amount of foreign travel amounting almost to emigration supervened at the close of the war, and became an additional cause for carrying abroad large quantities of gold. The consequence is that the increase of prices through depreciation of gold abroad must be first met and overcome on our return to specie payments.

But says our banker, I will now put the question, Of what importance, practically, to the science of money and exchange, is your demonstration, and what do you propose to do about it? What does it amount to? Is it not a mere question of words? I answer that it is, and something more. It has been demonstrated that the earth revolves daily upon its axis, while to the senses the sun seems to revolve around

the earth ; and notwithstanding the demonstration of the fact that it does not, our language and our actions correspond with the appearance and not with the demonstrated fact. It is perfectly certain that all the holders of money have been personally or representatively the sellers of products or capital, and most largely of the former, and so far have produced personally or representatively, and that the buyers, on the other hand, have bought to consume personally or representatively, and are therefore consumers ; the character of the actor changing accordingly as he buys or sells. The change of the relation is effected with money, and money has no use or value beyond ; but the actual fact that gold as a commodity and silver as a commodity will bring about the same by weight as gold and silver in coin, leads to the impression that coin has a like intrinsic value in its character of money. No mental distinction is made between the two values in human action : gold and silver can and do both retire largely into reserve or hoard, and are not loaned, but kept indefinitely and with perfect safety against loss, unless by force or fraud, through which all things are liable to be lost. Were they loaned they could only be used, unless exceptionally, in production ; for, as I have just shown, all holders of money are producers personally or representatively in effect, because they buy of a producer in person, or of him representatively through a merchant ; and thus cause an additional amount of production equal to the value of their money to take place. The borrower is more especially a producer, however, because he cannot, unless exceptionably, borrow to consume only, but must borrow to produce or buy of a producer or merchant for the consumption of many others beside himself.

When there are no calls, therefore, for loans to aid in further production, immense masses of the precious metals can be retired as they are into reserves or hoards for indefinite periods as in semi-barbarous countries. This feeling of confidence in gold and silver coin keeps large amounts of it in reserve everywhere, and causes an inconvertible paper currency, if issued, to move freely and retire the metallic one. This was and is

the case in France, and was the case in the United States in 1856-57, when over one hundred millions of coin were virtually retired in the hands of the people; a currency nominally convertible, and more or less depreciated, performing nearly all the functions of circulation, the metal very seldom making its appearance. The demand for gold to hold during the war; the making government debt and interest payable in gold; the immense energy and activity of production during and after the war; foreign travel and the emigration of citizens; and the habits of the people, comparatively less conservative than before, sent gold abroad instead of retiring it at home. On the whole, then, the fallacy of intrinsic value in gold and silver has a very conservative effect in making the volume of gold and silver money-units steady, and the habit will be persisted in against any demonstration of the fallacy. The effect amounts to this: the fact that gold or gold and silver as money are always worth as much as a like weight of bullion and plate, and that paper money, aside from the engraving and signatures, and the solvency of the bank together, and the bank credit aside from the solvency of the bank alone, are worthless, retire large amounts of coin from circulation while paper is used. Were there no paper the retirement would be less in proportion.

But says our banker, You now admit that coin is worth as much as bullion and bullion is a commodity: whoever has coin has a commodity, that is to say, bullion, and whoever has bullion virtually has coin. Yes, say I, but as I have demonstrated already, the bullion can never be worth more than the coin, excepting nominal figures; and suppose the exchangeable value of the coin as money to have been largely depreciated by the issue of paper and the creation of credit dollars which I have shown to be worth as much as gold dollars, where goes the bullion? Does it not now in its depreciation follow the lead of the coin?

If you debase the value of the gold coin by the issue of substitutes, what possible advantage have you gained by the exchange, that is to say, redemption, of the paper with the gold dollar: in other words, what advantage is there in re-

deeming at all? Of what possible use is it to debase a currency by increase without limit, and then to attempt to restore its value by exchanging it for one which the over-issue has already debased in company with itself? Is it not like a ship attempting to ascertain its distance from shore by comparison with another ship that has left the shore? To imagine that you have made a useful redemption or exchange of currency for gold, because gold has intrinsic value as a commodity, and is therefore a good thing and a safe thing to keep, is folly indeed in a commercial sense.

But says our banker, I deny your assumption, for it certainly is an assumption without proof that paper and credit dollars, at least the latter, are money, and that they can have any possible effect as such in raising prices by an increase of money-units called an inflation of money. These guaranties of bankers, called bankers' credits, may cause an inflation of credits, — and all credits are alike in that respect, — but they never can cause an inflation of money simply because they are not money; therefore they cannot cause an excess or glut of any particular commodity as compared with others; but unduly expanded credit is the cause of unproductive investment and national loss; and these bring on banking and industrial crises.

But, my good banker, which of us maintains his assertions without proof, and which with proof? Your argument is mere assertion, but I have absolutely demonstrated the fact that the money-unit can be embodied in any of the substances named, and finally, that the latter can be redeemed with paper, and that in all transfers of bank credit the result is the same, whether gold or notes are withdrawn and then redeposited or not: it is only a matter of clearing or not clearing.

But says the banker, have not the ablest writers of the day insisted, and do not eminent bankers generally insist, that credit is credit and nothing else, and that credit in the shape of bank-notes, bills, checks, and bank credits alone acts on prices?

Yea, my good banker, they have and do, but as you only

repeat your assertion without argument or reason again, by referring to undoubtedly high authority, I perceive very clearly that both you and they are arguing in a circle consisting of credit returning into credit. I agree with you that credit is the cause, beyond the possibility of a doubt, but I proceed one step farther and add after credit the three words, converted into money. The conversion costs a premium called interest. To speak more fully, mercantile credit, having no currency as money, is exchanged for bank credit in convenient amounts, having currency as money as well as a much higher credit. This takes the place of and has by controlling circulation in the reserve the same effect in swelling the number element in the ratio which makes price as against the other element of the ratio, quantity of units of weight or measure of goods in market, which remains stationary, as an equal number of money units made tangible in gold. Prices are therefore raised, not by mere credit, but by money. Credit acts on commodities; money on prices. Suppose money aside and exchanges made as freely by barter as by money: it is the business of a banker now only to guaranty personal credits for a consideration. He guaranties manufacturers A., B., & C., and they procure necessaries for workmen on the strength of the guaranty. Of what effect is it towards producing a *general* rise of values in exchange? None whatever. A., B., & C. cannot borrow necessaries on the strength of the guaranties so far as to create a glut and become bankrupt. Long before that point is reached they are compelled to sell: the credit has acted so as to depress the value of their manufactured stock and raise the necessaries; that is to say, it has acted *only on commodities*.

But says the banker, I was supposing the existence of money in the shape of gold coin, and therefore a currency to effect exchanges and not barter.

Well, say I, suppose, instead of barter, the existence of money, and that the banker guaranties *without loans*, as before: it is still personal credit and not money, and the result is the same: the credit has acted on commodities also in

this case, and with like result but more quickly : there is no general rise of prices, but a rise of necessities and fall of goods manufactured by the borrower : the loss is local and personal.

But says the banker, Suppose all manufacturers and most merchants, instead of A., B., & C. only, to obtain and pay interest, as did A., B., & C., for such guaranties. Then, I reply, they are all compelled to stop sooner than A., B., & C. were before, when A., B., & C. alone bought banker's guaranties, because the credit purchases of *all* manufacturers will now raise the price of necessities sooner than those of only three, and be more effective in preventing a glut through the overstock of A., B., & C. than if the latter had acted alone. Therefore, if a glut, more properly an overstock, occurs in a large portion of manufactured goods, if not indeed all, including in manufactures what plain facts without any theories require us to include, — that is to say an overstock of all goods for wear, iron and railroad materials, houses, and the material for construction of houses etc., — it is impossible that it could ever have occurred through credit alone, because the natural law, as I may well call it, of demand and supply, or more properly the impossibility of making the exchanges necessary to support life after all the working capital, no matter how highly guarantied, has been converted into overstock, renders a general overstock or glut of manufactures (of absolute necessities there never can be an overstock) impossible. Absolute necessities can never be overproduced ; and for that reason, and that only, relative, necessities can never, as a whole and on the average, be overproduced ; and because they cannot, it is impossible for mere credit, even all the credit in the world, to bring on a banking and industrial crisis through the *unproductive investment* of labor, raw material, tools, or anything else, as is commonly asserted and believed : it is, by the clearest demonstration, impossible.

THE MANNER IN WHICH CREDIT TEMPORARILY CHECKS THE OPERATION OF THE WELL ESTABLISHED LAW, THAT THERE CAN BE NO EXCESS OF PRODUCTION, BY FAILURE TO MAINTAIN PURCHASING POWER.

It is impossible, then, as before shown, for the credit of one man, or even of all men combined for that purpose, to raise all prices. The utmost that can be done upon credit is to raise the price of what one buys and lower thereby the price of what he sells, and this can never be carried so far as to create a crisis. But says the banker before alluded to, Do not the highest authorities say that a bill of exchange, which is a mere credit, a check, which is a mere credit, a promissory note, which is a mere credit, deposits in savings banks and with private individuals, which are mere credits, even commercial deposits, which are mere credits, and in short all credit whatever (it may be called debt, if you like), take the place largely of money ; and by so doing raise prices and cause unproductive investments ; and by those unproductive investments, and the values sunk therein, bring on banking and industrial crises ?

This is the same old question, good banker, repeated with some variation. You now affirm definitely that unproductive investment and crises come from credit, that is to say, an excess of credit ; but I have clearly demonstrated to you the fact that there can be no such unproductive investment, and that it is an absolute impossibility, because mere credit acts in two directions, — on the commodities bought as well as those produced by means of the credit ; and if an unproductive investment occurs it is unproductive because the producer cannot sell. The credit raises what he buys, or what he and his laborers have to buy, and depresses what they have to sell ; and, like a candle burning at both ends, unproductive investments must under these circumstances be short lived. Nevertheless, unproductive investments (they are so called, but they are, while productive in whole or part to the producers, not so much so to the nation) do occur, and crises result ; but if the reasons given are sound, credit alone

is not the cause; and yet the crisis comes through banks which have only a debt against themselves to give to the producers in exchange for producers' debt. Here is a manifest contradiction: Can it be explained? says the banker. There is but one explanation possible, say I, and that is that the credit given by the banker circulates as cash in the shape of bank-notes, to pay labor and small producers; and the transfers of credit are usually sufficient without handling notes or gold in large transactions. These payments are called set-offs of credit against debt by these writers and you, and nothing more; and here lurks the fallacy which deceives the understanding: it is taken for granted that this credit, without being first converted into money, raises *general prices*, if they are raised at all.

But says the banker, Are not bills of exchange, checks, etc., money quite as much as mere bank credit? Is not wheat, sent from Chicago to New York, sold for bills of exchange? Is not the same wheat, when shipped to London or Liverpool, sold mostly for bills of exchange running days or months? Are not these bills indorsed from holder to holder; and possibly, if the acceptors are strong, transferred from hand to hand until they are used to purchase English goods in exchange for the wheat? Is it not so, also, with cotton as well as wheat? Be it so, say I; if bills of exchange were or possibly could be used as money in the *general markets* where consumers are buying in order to eat, drink, wear, find shelter, comforts, or luxuries, they would, to the extent of their volume, undoubtedly raise prices in money; but they are not so used, and where they are actually used as intermediate exchanges, in order to produce the final exchanges of American for English and colonial productions, it only saves a few days' time; that is to say, it makes personal credit, for a short time, take the place of banker's credit: the bill is either discounted before due, or when due is paid or redeemed with banker's credit, mostly borrowed; so that this credit, in the shape of a bill of exchange, stands upon bank credit at last: the acceptor can only pay with money or bank credit, which is also a power to circulate money in the reserve: he must exchange his

personal credit for bank credit. This is the exchange of something which has no power to circulate money for a credit in bank which has. The method would be the same were there no banks and no money but gold and silver: the bill of exchange does not take the place of one dollar, pound, or franc in money: it only saves carrying money backwards and forwards, to and from commercial centres: it is, in short, clearing or set-off of debts to save the carriage of money without any diminution of the number of payments. So the check is in like manner but an instrument of payment by gold, silver, bank-notes, or bank-credits — the power to put these in circulation: it cannot put in circulation one dollar more than would be circulated were there no checks, nor can it put in circulation one dollar less. Personal credits undoubtedly cause goods to be bought at certain times and places which otherwise would not be then and there bought; but on the whole they cause less goods to be sold, because they act directly on the prices of the goods sold, and so curtail the purchasing power of the buyers. Moreover, as I have seen and can testify, individual promissory notes and state scrip (such as was issued by the State of Indiana in 1840–41 and afterwards) may be used in regions far from markets as a sort of home currency of very limited circulation; but the use is only temporary and limited. Again, the debts due by individuals, savings banks, and some private bankers, are to be excluded, for the most part, from the category of money, because the debts are not used as money. The debts due by private individuals for money deposited with them are sometimes debts due from loan agents who guaranty the loans, and, so far as it may be otherwise, the debts due by such persons are largely represented by deposits in banks; so that the only credit money thus arising appears in regular deposits; and if these are loaned in notes or gold, it is only doing what the depositors might have done themselves. So private bankers in large cities have their own, and therefore their depositors' credits in regular banks, which clear for the private bankers and thus for their customers. The funds of the savings banks are mostly in loan at long dates, or in government or corporation

debt. They are most potent auxiliaries, however, in causing overstock, by receiving bank-notes and checks, but mostly bank-notes left on deposit by laborers out of savings. The constant deposit and redeposit of notes, placed through savings banks in the vaults of commercial banks by deposit, can be loaned and reloaned to pay for labor, or labor and raw material, over and over again, while mercantile credits granted by commercial banks sustain prices, and thus increase the quantity of the overstock. Therefore, instead of the effective total of deposits being more than the total of notes and gold that would take their place were there no deposits, the total is probably less. No bank credit, aside from the reserve, is a substitute for, but only a power to put, money in circulation.

But how do bank loans necessarily cause overstock, admitting that an overstock or glut can arise? says the banker. Are not loans made to other people than producers? Every man, I reply, who buys and sells at all, is personally or representatively both producer and consumer,—a producer when he sells, a consumer when he buys for cash. A merchant who buys for cash, without bank loan, enables a manufacturer to produce something to take the place of what he has bought; a manufacturer who borrows money expends it in raw material and labor, and increases production to that extent, but does not balance his production by consumption, and so far deranges the exchanges. A merchant who borrows from banks and buys from the factor or commission merchant of the manufacturer or other producer, does, representatively (that is to say, as the representative of the manufacturer), the same thing; he produces, but does not balance his production by consumption, while all or nearly all other buyers are equally consumers. Hence all bank loans, unless in cases of swindling or mistake, or to supply immediate wants by anticipation of income, are loans to producers. If they sell, the loans are paid; if not, unpaid; and the degree of excess of overstock appears clearly by the volume of deposits above reserve in *commercial banks*. You, my good banker, and those writers whom you depend upon, admit that un-

productive investments and values sunk in the payments made for necessities, the raw material, the iron and iron rails, wood, labor, etc., that have produced railroads, mills, commercial and dwelling houses, town and city *improvements* made at enormously expensive rates, come from bank loans. Now if that imperative law which renders overproduction impossible, demonstrated so clearly by the great scientist, J. B. Say, be admitted, as you do and must admit it, how do you account for all this excessive production, unproductive, as you assert, but nevertheless only partially so, and chiefly so through excess, and excess only? This excess, which led to a crisis, took some years to accumulate, and it has taken place in spite of M. Say's demonstration. It can be accounted for only in one way. M. Say's demonstration is sound only upon the most abstract (that is to say, the most general) principles, but it is not placed upon the right grounds. His proposition is relatively true, but not demonstrated to be true in that sense. A more special demonstration is required to make it practically useful to you. The plain fact is, that the absolute necessities of life can never be overproduced. Population throughout the commercial world is always abreast of the production of absolute necessities, and necessities relative to civilization cannot be produced in excess *on the average*, for that reason, and for that only; and personal credit is unequal to the task of carrying any excess to a point in the neighborhood of a crisis. Therefore, the excess of unproductive or partially unproductive investment, whichever you may prefer to call it, can only arise from the excess of loans expended in producing these unproductive investments. This excess in the shape of money units, whether of bank-notes or gold, or what for the *convenience of the borrower alone* takes the place of notes and gold, — bank credit, causes (as each loan is expended on raw material of railroads, cloth, etc.) a rise of prices for everything in the market, including the things produced, which more than balances the natural decline of price in the articles produced, as I have plainly demonstrated, and in this way the producers make money, up to the time of the crisis,

on all they sell, notwithstanding the law of natural depreciation; but the inevitable law before demonstrated must assert itself at last through the banking and industrial crisis, and, in spite of all this increase of money, production is set back not only to a level with, but below, the rate of consumption, and on the average the law is maintained.

THE THREE FALLACIES ON WHICH THE CREDIT THEORY,
IN OPPOSITION TO THE MONEY THEORY OF BANKING,
ARE FOUNDED.

The manner in which temporary excess of unproductive consumption, causing crises, as in point of science it is erroneously called, takes place, has been shown; but our banker cannot yet see clearly how the excess can come from anything but ordinary credit, and he thinks "specie payments" would be a sufficient check at all events. He thinks, and correctly, that the enormous expenses of living, even in a way to which they have been accustomed, has begun to tell upon native population in some places. Nevertheless, our banker is not yet willing to admit that he is dealing in anything but credits like those on merchants' books, which certainly are not money. I offer him this further demonstration: had production of iron, cloth, lumber, raw materials of all kinds, etc., in excess of agricultural production devoted to necessaries, been impossible, there never could have been an excess of notes and credits in the character of money, even if producers, and merchants who are also sub-ordinately producers, had issued their own small and large notes, and used mutual credits. There would have been few failures, because prices would have been steady; but such a currency would be impossible through the difficulty of set-off or clearing, — that is to say, in other words, because it could not be conveniently redeemed. Therefore, the excess of money referred to, caused by relative overproduction, is the cause of high and advancing prices, and there are three fallacies which veil the fact from the eyes of the understanding: first, the impression that labor is the measure of values; secondly, that nothing can be money unless it has intrinsic

value, like gold and silver ; thirdly, the resulting impression that the money unit being only gold and silver possessed of intrinsic value, paper and credit units, although always paying on a par with gold, are merely credits, and not money ; forgetting that all that pays absolutely is money as well as credit, and all that is taken with the right of recourse on the payer, or somebody else rather than a banker, is credit only.

These three fallacies are at the bottom of the mercantile theory of intrinsic value in money. Thus the fallacy of intrinsic value, while it has the most conservative effect in keeping in reserve, and comparatively out of circulation, large hoards of treasure, which if freely loaned to producers to expend on labor and raw material would cause an enormous rise of general prices, is thus demonstrated with almost mathematical certainty. This fallacy has operated, and always will, more or less, to make men instinctively take it for granted that what is really *intrinsic utility as a commodity, and nothing else*, is really intrinsic value as money. The same fallacy has had, has now, and always will have more or less, the effect of keeping out of circulation vast treasures of coin and bullion, while paper money, which possesses no intrinsic utility as a commodity worth preserving, while it possesses the same extrinsic value as gold (for all values are extrinsic), is more freely put in circulation, and retires the gold, which is a second and still more important and useful effect of the fallacy. Thus this fallacy had the excellent effect in France, a few years since, of retiring an enormous mass of treasure — perhaps twelve hundred millions of dollars — and replacing it with paper : the conservative instinct of the people remained after the issue of the paper ; production was not stimulated essentially by loans ; the people, anxious to invest the paper advantageously, emulated each other in the purchase of the government debt ; and the whole force of price-expansion, latent in the paper, was beneficently expended upon *rentes*, which were all called home from abroad, while the expansion of circulation, through expanded production in Germany, stimulated, if not almost wholly created,

by the French indemnity, caused more loss to Germany than gain. The same effect was manifest in the United States in 1857, as before remarked, by the almost complete retirement of one hundred millions of gold, in consequence of a vicious currency, and a result similar to that in France was rendered impossible in the United States since the commencement of the civil war, in 1861, up to this time, in 1877, through the causes already named.

THE MONEY UNIT, WHETHER DESIGNATED BY A GIVEN WEIGHT OR MEASURE, OR BY A NAME WHICH DOES NOT REFER TO WEIGHT OR MEASURE, IS IDEAL ONLY.

From the foregoing demonstration it is certain that the money unit, by whatever name it may be called, even when its existence is demonstrated by the production of a gold or silver dollar, a gold sovereign, a twenty franc, or a twenty marc piece, has no intrinsic value whatever; and even the intrinsic utility possessed by the gold must be rigorously excluded if we mean to talk about the science of money and exchanges and the principles upon which steady purchasing power can be guaranteed. Its value is extrinsic, and consists in the power to obtain in exchange for it a certain number of units of weight or measure in whatever is to be sold for consumption; in other words, for use; and still in other words, for cash: the number of the units of weight and measure, it must not be forgotten, vary least on the average in articles of absolute, most in articles of relative necessity; and the degrees of variation in the latter are indefinitely large, because they cover necessities approximating but not meeting the absolute; and they include luxuries and services. It requires considerable time to produce much change in their real proportions, because great changes of production, and therefore of wealth, require considerable periods. Great changes, taking place in short periods, can only come from apparent and not real wealth, demonstrated fictitiously through rise of prices, by the increase of money units. Any increase of money units, in whatever shape, in the hands of buyers, carried into their hands by laborers and sellers of raw material,

where the product has gone into overstock because it will not sell, has decreased by consumption the units of days' or months' labor, the units of pounds of raw material, and the units of weight of wheat and provisions; and so on indefinitely, while it has placed the product in overstock, and at the same time increased the units which go to make price.

THE PRICE OF MONEY IS MEASURED BY UNITS OF WEIGHT, MEASURE, AND TIME, IN COMMODITIES AND LABOR OR SERVICES.

All values imply number, and must be measured, therefore, by units. These units must necessarily be more or less abstract and ideal, because savages can count to but a very limited extent; in fact, only to the extent required to make their limited exchanges. When gold and silver were first used as money, units of weight became essential, and the units of money and the units of commodities were necessarily more or less ideal: although units of days' labor in one commodity might have been previously, in the absence of all other means of exchange, exchanged, perhaps, for units of days' labor in another: all numbers, that is to say, all units, are ideal, because they can be predicated of all things, and the numbers are therefore abstract. When applied to definite objects they are abstract more or less: even when definitely applied, the intrinsic qualities of the things numbered do not enter materially into the account, except so far as there is actual utility in the things to supply some want. Ideal goods undoubtedly do not admit of sale, but if goods not yet produced were contracted and paid for, and the contracts placed in market, prices would be accordingly affected. The non-delivery through non-production of the goods would restore the equilibrium of prices, because goods are wanted only for consumption; but a paper or credit dollar is redeemed indefinitely by other paper or credit dollars, or by a gold dollar; and a gold dollar is redeemed, that is to say, exchanged for a paper or credit dollar indefinitely, for all redemptions of money are but exchanges. Money can only be redeemed by other money even when the redemption is on a national

or world's scale; and it can only be redeemed by money on a local scale. Hence the money unit is wholly that of the commodity partially ideal, and sufficiently so to make not only the number of units of weight and measure actually on hand, but also those guaranteed to be shortly on hand, determine the price of money in those units.

LOCAL REDEMPTION OF MONEY.

The local redemption of money is, even if we speak with rigorous accuracy, conducted upon the same principle as the national or universal redemption (for the whole commercial world) was accomplished. If a bank retires from business and winds up, the notes and credits issued are redeemed by those of other banks, which take their place: if a new bank is established, it either increases the number of money units or merely issues enough to take the place of those retired by retiring banks. Gold in one place is redeemed by gold in another place, where there are no banks, by the instrumentality of a bill of exchange.

But says our banker before alluded to, You say gold in one place is redeemed, that is to say exchanged, for gold in another, and therefore gold can only be redeemed by itself; but all paper and credit money are redeemed by gold only. In that assertion, my good banker, say I, you are wholly mistaken: commerce is the carrying from all producers to all consumers of what can be consumed, through the exchanges of those things producers cannot consume themselves: the commercial clearings at commercial centres are the sums of the things sold and consumed within the commercial limits of those centres except the sales of overstock, which result only in changing bank debtors; and as London is the greatest centre of international commerce, the clearings must cover immense sums of raw produce and manufactures exchanged with many parts of the world other than Great Britain. But the purchase of that produce and those manufactures, if they come from outside the kingdom, require an exchange of British manufactures, and to some extent perhaps gold: and what do the British manufactures cost? They cost gold, or

Bank of England notes amounting to gold, for labor, and they cost British goods for raw material, which is paid for in British goods again; and these British goods cost labor again, paid for in gold.

Again, the British goods sold in the home market are paid for mostly in gold and Bank of England notes: in short, the London clearings, after deducting sales of overstock, are on the commercial side made up through goods consumed at home or sent for consumption abroad, and are on the money side made up in their origin, so far as home consumption is concerned, partly of money transactions outside of banks; that is to say, of gold and Bank of England notes paid out and afterwards deposited. These clearings largely constitute the redemption of gold and Bank of England notes by giving credits in exchange for them. But inasmuch as the gold deposited for purposes of redemption in a common reserve in the Bank of England, if withdrawn by means of a check in consequence of goods consumed, would be immediately redeposited in the same or some other bank, a clearing saves all this unnecessary trouble; and the result is, that after the clearings the total of bank credits is nearly the same as at the commencement. The final result is, that check-holders set off bank credits against bank loans, all of which results in retiring bank credits to the value of goods sold for consumption, so far as the merchants receiving checks are in debt to the banks. The latter is the consummation of the redemption. The gold or Bank of England notes deposited in country banks by dealers are redeemed by the transfer of a credit in a London bank given in exchange for the gold. Had gold and silver without banks been the only money, as soon as the goods were sold for consumption, gold for a corresponding amount would be handed to producers and capitalists, and the last and final act of circulation by gold would take place by returning it back to the producers and capitalists, who had originally put it in circulation, — the former for labor and raw material, and the latter by loan. Precisely so in the London banks; the last act of circulation is accomplished by retiring and can-

celing bank credits, instead of a like amount of bank-notes, through the merchants who set off their debts to the banks, which have been the means of creating bank credits, by handing into the banks a like amount of credit transferred to them through the instrumentality of checks. The bank book transfers are not the payments, but registry of the payments. Thus a change of bank credits from A. to B. is only the registry of the movement of gold in the reserve from A. to B., and a loan to C., which increases the total of deposits, is a power to put so much more gold in circulation. Bank credit takes the place of a like amount of bank-notes or gold by empowering the holder of the credit to circulate just as much gold as he could if his credit were all gold. Hence it appears very clearly that the founders of the Bank of England, instead of establishing a bank whose notes vary or circulate as gold in the commercial world naturally varies or circulates, established one whose notes (gold) vary as bank credit varies. They were deceived by the fallacy of the mercantile theory of intrinsic value: they supposed that gold coin was a standard, instead of being only the ideal money unit embodied in gold; and that gold being the standard, all currency not worth as much as gold must depreciate and go below gold. They did not perceive that gold might, through artificially increased circulation, depreciate; and that the depreciation could only be marked by its exchangeable value reckoned in units of commodities. They were deceived quite as much as mariners who, supposing that they are estimating their distance from a fixed object on shore, are estimating it from an object moving like themselves.

The American banking system in 1857 was like the English system before 1844, but with more weak banks. The multitude of banks redeemed, as the banks do now, for each other. It sounds strangely to say that bank-notes are redeemed in the sense of the true object of all redemptions, under an inconvertible currency, as regularly as under a convertible; but such is incontestably the fact; and with comparatively few exceptions, occurring under what is called "Specie Payments," there has been but little more gold act-

ually circulated from hand to hand under convertible than under inconvertible currency in the United States. All banks redeem for all other banks by receiving all current bank-notes on deposit. These notes have been paid out by buyers for purposes of exchange leading to consumption, and are sent into deposit by dealers who, in exchange for the deposit, take the drafts or checks of the receiving banks, on banks in the clearing or commercial centres, and who, first or last, use them, by extinguishing or canceling the bank credit represented by the check, in taking up their own discounted notes and bills of exchange. When the exchanges were largely in favor of the clearing centres by reason of an excessive and depreciated currency, like that of the free banks of Indiana and Illinois and other banks prior to 1857 (the rate of exchange varying from one half to ten per cent.), sound banks were subjected to the inconvenience of furnishing exchange to those who found it profitable to assort their notes; and in case of refusal to pay in drafts on New York, they were required to pay large sums in gold in exchange for their own notes, which had been assorted by those brokers who dealt largely in exchange — some banks keeping reserves of gold equal to two thirds of their respective capitals. This gold was not *kept* by the brokers in exchange: it was sent by express to New York, to enlarge the credit fund to be drawn against, and from time to time the same banks which redeemed in gold ordered a part of this same gold back from New York, like the managers of the Bank of Ayr in Adam Smith's time who bought gold in London to redeem their notes with; but there was this difference: the managers of the Bank of Ayr bought to sustain their overissues; these sound American banks bought to sustain the overissues of other banks, as they were forced to do, through the discount and deposit system. To complete the redemption of the notes promiscuously deposited, therefore, a payment in gold was not sufficient, but the exchange of the gold for a credit in New York, in order to balance or perfect the exchange of commodities between the country and the commercial centre, or

in other words to make the money exchanges balance, as well as those of commodities. The gold in the great commercial centre of London is not a regulator of the volume of gold and Bank of England notes circulating in England, but the total of all bank credits is: on the other hand, the gold in reserve against credits and bank-notes (for it all constitutes one fund) in the United States is not the regulator of the volume of notes, but the volume of credits is, gold being a costly mercantile ballast which draws no interest, while in London the export of gold loaned from the banks is an indicator of a speculative advance of produce and raw material in the London markets through loans to producers, which is checked by the export, and the check is increased by raising the rate of interest. The return of gold only indicates that sales have taken place and that prices have been made lower thereby; and for that reason, and no other, new discounts and purchases may be made. The only natural and regular movement in this case is in the export and import of gold; the artificial raising of the rate of interest hastens sales, and thereby becomes an auxiliary, reducing or contracting the volume of bank credit. In the same way gold goes out to invest in bills of exchange or buy produce for which there is a home demand, while there is not a corresponding and equal demand for British goods. These latter are all healthy and regular movements of gold; but the fact to which I call attention is, that gold moves here as merchandise and not as money. Moreover, as I have shown in the chapter on Circulation, prices depend upon the money in circulation, not upon the money out of circulation: the gold in reserve circulates in subordination to the bank credits instead of controlling by its circulation the creation of bank credits.

REDEMPTION AN INFALLIBLE TEST OF MONEY.

The initial act or movement of currency, whether borrowed or not, is a payment to a producer: hence all loans from capitalists or banks, made by manufacturers and merchants, both of whom are producers, are in excess of the money they furnish themselves, and in excess of the money

belonging to the producers of absolute necessities, who cultivate the earth and make no such loans. The loans of the latter, by way of mortgage, are an assignment of net profits to an amount sufficient to cover the mortgage; and if there be not enough, then of the land itself: hence, all bank loans, unpaid, demonstrate production not yet balanced by consumption; or, in other words, by sales for cash: the last movement or act of circulation of the money loaned is a payment back by a class of producers other than the first, and who have made sales of their own productions, of an equal amount of money, for the amount thus paid out at first; whereby also the borrowers obtain funds to pay their loans. This return movement of money out of circulation, resulting from goods bought for consumption, gives rise to a considerable redemption of the money thus returned by means of deposits of the money in banks and resulting checks on commercial centres. But says our banker, How can anything be redeemed unless by something better than itself: and is not a bill of exchange always redeemed by something better? Yes, say I; but I have shown that even gold and Bank of England notes are redeemed by movements of other gold in a reserve, and as a result canceling or setting off bank credit against debt due to a bank; and the credit is better to the merchant than the gold, because it is a power to move gold without the burden of keeping it. A bill of exchange is never redeemed by a bill of exchange, but by bank-notes, bank credit, or gold; and these three are on a par so long as they are mutually convertible. If bills of exchange are really on a par with bank-notes and credits, they can certainly be redeemed by bills of exchange indefinitely, which is absurd, and impossible as well as absurd, because the bills of exchange must be discounted before payment in full can take place. Fictitious bills of exchange, and bills given in renewal, because sales of things produced by means of the loans on these bills cannot be sold, are not redeemed but renewed: money can only be redeemed by itself: redemption is only an exchange of currency. Could sales be made by the drawers and acceptors of the bills, they would be

made, undoubtedly ; to imagine that tariffs, taxes, great improvements in machinery, and making less laborers necessary, are, singly or collectively, the cause of creating the glut of manufactured goods, of iron, of iron rails, chairs and spikes, of lumber and materials for rolling stock, of locomotives, cars, and railroads, that are not worth the cost, of warehouses, stores, and dwelling-houses, without the aid of bank loans, is to put the temporary for the permanent, the accidental for the certain, post-auxiliary for first causes. These temporary and auxiliary causes, or, more properly, aids in bringing about the production of things only relatively necessary, in excess of those absolutely necessary, act only in subordination to the main cause, which is an excess of circulation through bank loans. Were there no such excess, there could be no banking crisis, nor even an industrial crisis : were the proceeds of bank loans in the shape of bank-notes and credits no more effectual in raising prices than bills of exchange, promissory notes, checks, and credits, given on book by merchants, not only would a banking crisis be impossible, but an industrial crisis would also be impossible, as I have already demonstrated ; because all the bills of exchange, notes, and bank credits in the world could never furnish producers and laborers the necessities of life for a single year, provided they were all the time producing twice as much as they could in the mean time sell. Nothing but a power adequate to raise all prices alike, in a progressive ratio, so as to make the last yard or pound successively sell for more than it cost, *for a long time*, can possibly accomplish this feat ; and the only power that can accomplish it is money, or something that in some disguise or under some mask or other performs the office of money. That office is to pay down without recourse upon the buyer or any one else but a banker who issues, or a government that demonetizes ; and that recourse is only a legal demand upon the banker to exchange the bank-note or credit for gold if the holder desire, or, as usually happens, for a bill of exchange, check, or draft, to transfer—what ? Other bills of exchange, checks, or drafts in payment of the surrendered

and canceled bank-notes and credits? No! but to transfer to the holder or his order like notes or credits; possibly gold at a commercial centre in exchange for the first. Thus redemptions of all sorts of money are perpetual and unending; or at least they are indefinite exchanges of money for money; of money in one place for money in another place by the instruments named, which are not themselves substitutes for money in the exchanges, but the instruments to exchange money at one place for money at another place. Personal credit is of very limited power in buying necessities: it is sometimes largely resorted to to help dispose of overstock, and it is a potent auxiliary in keeping up the prices of some things greatly to the damage of the holders of goods, of which there is an overstock, by postponing the inevitable crisis; but it is not the cause, nor is it a part of the *original cause* of overstock. Inasmuch then as these instruments, in the shape of bills, checks, etc., are not money, and differ from bank-notes and credits in the fact that bank-notes and credits are redeemed only by like notes and credits, that is to say by themselves or gold, and inasmuch as the bank-notes, credits, and gold, or gold and silver, are mutually convertible into each other, it is clear that you, Mr. Banker, and the writers you refer to, that is to say, all the writers there are, are entirely mistaken in confounding what they call bank credit with other kinds of credit; and that personal credit which gives rise to bills of exchange and promissory notes is something very different in its results.

The question, then, is reduced to this form: Is money a commodity only, like other commodities, or is it only an ideal unit or series of units adopted by convention, for the purpose of effecting the exchanges of the fruits of labor and capital principally, and capital incidentally; value as a commodity in the material of money being serviceable, and, so far as experience goes, indispensable to maintain the number of units physically represented in coin, in such steady proportion to the increase of consumption, that is to say of commerce, that the production of relative necessities shall keep in harmony with the production of absolute necessities?

That is the real question. Adam Smith is the only writer I know of who has referred distinctly to the question of relative and absolute necessities upon general principles independently of money. That great Scotchman distinctly refers to it on page 130 of the "Wealth of Nations," fourth edition, London, by Alex. Murray. It would be impossible to discuss further the question whether money is a commodity or only an ideal unit, without inquiring particularly what circulation is; and that is a subject by itself, discussed under the head of circulation.

Adam Smith showed very plainly that money is subordinate to production, and that wealth comes from labor, and he ought to have added, as M. Say does, from the coöperation with labor of the productive powers of nature appropriated through land; but he is right in the main, and is supposed to have demonstrated the falsity of what is called the mercantile theory. He has done so only as respects freedom of trade and the necessity of giving the freest circulation to gold from one part of the commercial world to the other. But he never succeeded in showing, as some allege, that large imports of gold do not show a healthy state of commerce for the country importing, because they actually show the contrary. They not merely show, they absolutely demonstrate, that the importing country is receiving gold because it is selling more than it is consuming; and by and by, when it chooses, can call upon the commercial world for merchandise, the equivalent of the imported gold, because it has refrained from consuming goods to that amount with a demonstrated right to do it at a future time. Precisely so is it with a thrifty and economical producer who has gold to show for the proceeds of what he has sold and not consumed. When the mercantile theory taught that gold and silver were real wealth, and that being so they ought to be kept at home by the most stringent, and invited from abroad by the most liberal, provisions, it only proved the falsity of your doctrine of intrinsic value by a *reductio ad absurdum*. Undoubtedly the stimulus given to production and enterprise by the discoveries of gold and silver and working of mines, after the

discovery of America, had a powerful influence upon the progress of mankind; and the same kind of stimulus is now afforded through money put in circulation by bank loans up to a point much short of a crisis. The mercantile theory still prevails in the world and with all the writers upon money and exchange. It is simply the theory that money is a commodity and possesses intrinsic value, and that the object of convertibility is merely the metal promised, in spite of absolute demonstration to the contrary. The inference from this theory is, that gold coin being an object to be sought for itself, it must necessarily be a standard, and being a standard, so long as bank-notes or credits are on a par with gold there can be no undue expansion; that under an inconvertible currency the premium on gold marks the deviation of the paper from the standard and the loss of purchasing power or exchangeable value of the paper; that under a convertible currency redemption of bank-notes in coin, although seldom taking place, and "clearing" at commercial centres, where actual payments in coin are rendered unnecessary through the clearing because the gold would be immediately redeposited, show conclusively that the currency is at par, because gold coin having intrinsic value as money is a commodity, and all the paper and credits are mere promises to pay it. They ignore or rather they do not perceive the fact that bank credits and bank-notes have been the principal currency of the United States for generations, — the notes and credits of one banker succeeding to those of another, — and that the quantity of gold in circulation in England varies precisely as the volume of bank credits; that is to say, that it varies just as bankers choose to make it vary by the quantities they cause to go into circulation to pay for labor and advance production ahead of consumption. The circulation of England may for all practical purposes be called gold, with silver enough for small payments and change; but instead of varying as gold would were there no banks of discount and deposit, it varies with the discount market: the more discounts the bank ledgers show, the longer and larger the lists of securities received from mer-

chants and manufacturers the lower becomes the gold reserve, and the lower the gold reserve the larger the circulation of gold.

The grand advantage of a metallic circulation without banks of discount and deposit, and which makes the loss of the unequaled benefits and conveniences of deposits tolerable, is the comparative security it affords, as in France, against industrial crises arising within the country. And why does it afford that security? Simply because there are no banks to loan from, and although money is abundant, it cannot be circulated so as to buy raw material and labor enough to make an overstock sufficient to cause an industrial crisis, and there being no banks, there can be no banking crisis. If it be true that the money unit is not ideal, and merely a denominator of values; if it be true that metallic money possessed of intrinsic value is the only real money in the commercial world; that bank-notes and bank credits are mere credits, and not powers to circulate money, and that one kind of credit is as potent to raise and sustain general prices as another, — why have we never seen industrial crises in France, as we have seen them in England and the United States? There is but one reason, and that is, that personal credit is not adequate to raise general prices, and therefore there has not been a sufficient amount of overstock or unproductive investment (whichever we choose to call it) to bring on an industrial crisis in the English and American sense.

Finally, there is an unfailing test of money, — that is to say, of what constitutes money. That test is not the fact that the thing affirmed to be money cost labor, because labor may be thrown away in the performance of an entirely unprofitable and useless act; but it is the fact that it is always redeemable with that which has cost actual values, or will at least procure them when desired. Ordinary and final redemptions take place in something which has cost actual values for the most part, excepting always a final redemption of a metallic currency by one or more governments. Thus, for example, when a bank receives on deposit bank-

notes paid by a consumer to a retail merchant, who, as a producer, deposits them in a bank, and shortly obtains from the bank a check or draft upon a bank in a commercial centre, and remits the check to the wholesale dealer in payment of his purchases, and the wholesale dealer obtains a transfer of credit to himself to that amount, the credit so transferred through the instrumentality of the check has cost the customer who transfers it value to that amount, and this transferred credit is afterwards set off against the wholesale merchant's debt in bank. This is the ordinary form of redeeming bank-notes, first and last; and when a bank winds up and retires, either its bank-notes and credits, or credits alone if it has issued no notes, its final redemptions or cancelings of credit are performed in like manner to a large extent. Bank-notes are redeemed, then, by the transfer to the holders of an equal amount of bank credit, chiefly at a commercial centre; and the holder or indorsee then consummates the redemption by authorizing, through his own check, the canceling of that bank credit by setting it off against his bill or note held by a bank, and which is canceled and returned to him in pursuance of the cancellation of the bank credit covered by his check. But the final redemption of a metallic currency takes place by common consent, through the agency of the government or governments making it; and the medium in which the redemption is made may have cost something, or it may have cost comparatively nothing. If, in another metal, that metal may have cost only a fraction of what the demonetized metal has cost the holders. Shortly after the exchange has taken place, however, the new coin will represent—what? Nothing but itself, certainly; but it will now have cost the holders goods to the value stamped on all the new coin, and not the amount of labor which the metal cost before monetization. The amount of labor it cost has nothing to do with the value of the new money; but because the metal has been monetized, it will be mined with great care and at greater expense in the future. The result will be, that the whole value of the metal as a commodity is determined by

its money value, and those who cannot make a living by mining for the metal will be forced by necessity to abandon mining. The cost of the metal in labor has nothing to do with its money value in any other way or to any other extent. The quantity of it on hand, and not only on hand, but used, determines its exchangeable value, and not the quantity on hand alone, as happens with all other commodities.

That the cost of labor, then, determines the value of either money or anything else must be abandoned, giving way to the elements of utility, necessity, and quantity. Days' or weeks' work do not furnish a measure of value among savages; but if they do, quantities have taken, through the progress of civilization, the place of that measure in the shape of units of money and units of weight and measure, as artillery and small arms the place of bows and arrows.

The only positive law which can be said with any certainty to exist in relation to compensation for labor is, that unless one kind of labor will furnish the necessities of life at least, the laborer will be compelled to abandon it to undertake labor that will; and we may add also, that in the end the laborer will only labor at that work which will furnish the ordinary comforts of life, if they are to be had. The motives which control human action in reference to labor can be laid down no further with any pretense of certainty. The labor, however, which is applied towards the production of gold and silver must be thrown out of consideration entirely, as a rule or guide in ascertaining the value of metallic money. Its value is extrinsic and conventional, like that of bank-notes and bank credits immediately convertible into bank-notes or gold. In point of true monetary science it does not differ from them essentially, except that the units tangible in gold cannot be increased at pleasure, and therefore furnish better means towards the end of all money. Hence there is no gold standard. The money unit is the ideal and only standard. Gold, subject to the fate of indirect demonetization of one of the metals, may be fixed in the ratio of 12 or 16 or 20 to silver; or silver, or even

tin, conversely in the ratio of $\frac{1}{12}$, $\frac{1}{10}$, or $\frac{1}{8}$ to gold. It is a matter of convention, subject to only two conditions; 1st, the convention must be universal; 2d, it must fix the barter rates between the metals at the natural average as shown by experience, as nearly as possible.

If either of the metals be overvalued according to the existing ratios of value, it will circulate in the market of overvaluation to the exclusion of the other, if coinage is free to all; if undervalued, it will depart. The whole question is one of barter relation between the two metals, and there must be two metals, therefore, in order to have undervaluation or overvaluation. Were silver and gold *universally* monetized, it is an open question how far either could be universally undervalued or universally overvalued. This would depend upon the value to which it would sink, if demonetized. If both could be universally monetized at such a reduced barter rate for silver as would gradually appreciate gold and reduce the total metallic mass of coin by carrying more of it into manufacture without at the same time materially discouraging and therefore diminishing the annual product, it would be well. Meantime gold will suffice for all the purposes of circulation in Europe and the United States, unless and until the Eastern nations abandon silver.

REDEMPTION OF BANK-NOTES, AND THE FALLACIES CONNECTED THEREWITH.

It has been shown that currencies of all kinds are redeemed from time to time with other currency, and bank-notes constitute no exception. On the contrary, however, the popular idea is, that there is no other kind of redemption but that of bank-notes. One object, and the chief object, in redeeming bank-notes promptly in coin is to keep the volume of the notes in even proportion to consumption of commodities, and for that purpose not to allow it to increase any faster than the annual production of metal whose place it takes. It will then increase only with the consumption, and not the production, of commodities. This redemption of bank-notes applies only in the case of banks of issue with-

out the functions of deposit and discount. In that case the redemption fund comes from the commercial world's stock of metal at large, and therefore only from metal obtained by producers who have sold stock or products to consumers who sold products of their own, and not consumers who have sold only labor without any sale of its product following. There are, then, two great objects to be gained by redemptions: to keep an even volume of circulation, as in the case of banks of issue, and to prevent the excessive consumption of commodities by laborers, and producers who have obtained them in exchange for labor only, and not for other commodities. It is impossible to explain the process of redemptions without tearing away the veil or mask thrown over it by money. That done, the real object of redemptions becomes comparatively plain. That object, in general terms, is to maintain harmony of production. That harmony cannot be maintained even by redemptions in gold, if made out of a fluctuating reserve not regulated with a view to the results before mentioned. It is said by most writers, and in very plain and clear terms by Professor Perry of Amherst College, in his work on Political Economy, that a redemption in metal is an end in itself, because the metal is something substantial and a commodity, like wheat, for instance. This is a great fallacy, as already in many ways shown. Metal is not an end in itself, but means to an end. This end has been fully explained; and to meet this end redemptions are essential, in addition to the fact that in the payment of international balances metal is indispensable, because the field of convention for paper does not extend beyond the country issuing it. The sum of all that can be said upon the subject of redemption is that the true objective point in the redemption of all currencies, whether metallic or paper, is to maintain the purchasing power of the money at as steady a ratio as possible. Paper money not convertible, issued by governments, has a purchasing power guarantied by them. If they issue too much the guaranty is broken, as in the case of the French assignats and the old Continental currency of the United States. Overissues by banks sometimes end in

the same way, and for the same reason. Silver was guaranteed by the greater part of the commercial world, and the guaranty is broken by demonetizations where loss comes to any holder or creditor thereby ; but inconvenience only, and not loss to any great extent, has been the result so far.

Gradual gain of gold in purchasing power ought to be avoided as well as loss. If the nations which have demonetized silver have by so doing laid a foundation for such a gain either in gold or bank-notes, they have committed an error. If there were only twenty-five hundred millions of dollars in gold and silver coin in the world, a production of one hundred millions in one year would carry say thirty-three and one third millions into manufacture, and sixty-six and two thirds millions into coin. This would increase the mass of coin by about two and three fourths per cent. Double the mass of coin, and the ratio of increase would be only one and three eighths per cent. The rapid increase of gold after 1850 for a time was probably in advance of the increase of commerce ; but, on the whole, for the last twenty-seven years the increase has not been in advance of commerce. The product of silver has been less than that of gold. It would seem, therefore, to be worthy of consideration whether it would not be wise to bring about a universal and equal monetization of both metals everywhere throughout the commercial world, and the right of depositing bullion or coin in the treasuries of governments on the part of individuals, they receiving certificates therefor.

CHAPTER VIII.

PRODUCTION, OVERPRODUCTION, ILL-DIRECTED PRODUCTION, PRODUCTION ON CREDIT AND SPECULATION.

PRODUCTION is the foundation of commerce. In the most abstract or general sense it is the performance of some act or service or the making of something beneficial, or supposed to be beneficial, to the producer, first for his own use directly, and, secondly, for his own use indirectly, by way of exchanging the surplus for other acts, services, or things done or made by others. Labor is the human act, and capital the thing upon which and by aid of which the act is brought to bear in causing the product, whatever that product may be. Capital itself is the accumulated result of labor, whatever form it assumes, and of natural forces and natural material upon which the labor and force are exerted. Definitions are important only when popular language is founded more or less on errors and fallacies and so comes short of sufficient precision. In a general sense, commerce is a branch of production. It distributes what has been produced, and thereby gives it additional value, as labor gives new value to material which is already a product of labor by making it into a new product. To distribute cotton cloth gives it a new value, as spinning and weaving give new value to cotton wool. It is all means to an end, and that end, after the producer's consumption, to satisfy his own wants, is exchange. Production, therefore, is at work all the time, from the very first application of labor which originates the product, to the last, which through the medium of exchange distributes it to the consumers by means of local or neighborhood, national or international commerce. Money, as before shown, is the conventional commodity by means of which the exchange

is effected. Without money one commodity would be exchanged directly for another commodity or service, and one service for another service or for a commodity. All nations which have emerged from barbarism, and many nations and tribes in a state of barbarism, have invented and used money of some sort, and hence it may be said that there is a natural tendency to adopt and use it, as there is a natural tendency to the use of language. When a commodity of any kind is thus used as money, it ceases to be a commodity subject to the common law of supply and demand, so far as it is used as money. Its exchangeable value in the shape of bullion or other raw material can never exceed its value as money, weight for weight, although it may be less. Its demonetization in one country, therefore, and consequent restriction of its use there, so far, to that of an ordinary commodity, may to a very considerable extent depreciate it when valued in the new money which takes its place, without immediately changing or reducing its exchangeable value in another country which still retains it as money; because as money it is only a unit of valuation, purchase, and payment, and prices can fall only so far as additional units coined out of the material so demonetized are put in circulation in the countries still using the material as money, in consequence of the demonetization which has taken place elsewhere. This process is now going on slowly, in consequence of the late demonetizations of silver. Because all money is but a series of such units, and all valuations of commodities by each other, and still more by a general substitute for one commodity, which substitute we call money, are made by units, therefore inconvertible government and bank notes are largely used as money, and mere credit rights entered in units, and duly and regularly redeemed by set-off, or units transferred by book account, provided they pass in absolute payment without recourse, are units of money, and stand as substitutes for a commodity, as do gold and silver coin — *e. g.* units of bank debt, with only inconvertible paper in the reserve. The end of production, then, so far as it is enlarged by commerce, being exchange, and exchange being brought about

always by giving one commodity, wanted for consumption, in return for the substitute called money, which completes the exchange, without right of recourse or reclamation of any kind, it necessarily follows that he who gives a real commodity for the substitute has the right to exchange the substitute for any real commodity he may want. So long as he does only this, it is certain that the substitute can never be in excess of the real commodity; its exchangeable value will be uniform, which means, in the language of money, that prices will always be steady.

But because the substitute can never be consumed itself, while it always maintains its universal exchangeable value, it follows that if by means of loans it can be paid out for labor faster than the product of the labor can be exchanged for the purposes of actual consumption, this excess will necessarily depreciate it as valued in the real commodities actually exchanged against it for the purpose of consumption. This will necessarily raise the price of the goods in stock not sold by raising the price of those which are actually sold.

Production, then, being in the most general sense in which the word can be used the chief employment of civilized men, each must produce with some degree of harmony; and if one produces largely in excess of another's ability, precisely so far the latter is incapable of exchanging with him; and if the former has produced on credit, sooner or later a crisis must take place in his production, and he will be forced to sell his surplus for what he can get. Upon the most abstract or general reasoning possible, therefore, there cannot under any circumstances be a general overproduction, because production must necessarily proceed in harmony upon the average. But there is another and special reason why general overproduction is impossible. It is now an admitted and established fact that population and the absolute necessities of life always keep even pace. Therefore we may call this line what I have called it in another chapter, the base line of production, beyond which all other production cannot proceed indefinitely, either in time or quantity; but will.

like a military commander who abandons military law by departing too long and too far from his base of supplies, be suddenly forced back by reverses to the base line. This is production and these are the general laws which govern it. The cost of production does not determine prices, but prices up to the time of a crisis determine whether production shall go on and at what pace on the average, or whether it shall stop altogether. Average price results on the whole from average production, while excessive production during the time it is going on carries up prices; and defective production which succeeds carries down prices. The whole system of exchange is necessarily a system of mutual action and reaction, human wants being the source of action. There is a limitation to the production of absolute, and by reason of that limitation a limit to the production of relative necessities. The limit to the productive powers of land has not yet been found, and it is only a speculative question what lands are first cultivated. It is not always the best; it is not always the poorest; the one or the other is taken first, as circumstances may determine. Large bodies of the best land are unimproved in the United States at this time because the improvement would really or presumptively cost too much for profit, while large bodies of the best land have been improved because ready for improvement. The capacity of the United States to produce the necessities of life has been scarcely broached, while its power to produce other necessities is advancing with giant strides.

OVERPRODUCTION AND ILL-DIRECTED PRODUCTION.

All overproduction is necessarily ill-directed production. The first term is the most expressive, for all production whose products cannot be sold for a long time, and when sold can be sold only at a great loss, and perhaps sometimes not at all, is necessarily overproduction. But because general overproduction is impossible, some deny that there can be any overproduction. It is only a fallacy of words. There surely can be overproduction, if there can be ill-directed production. This overproduction, as already shown, is in

relative necessities only. The average expenses of living and maintenance of capital absorb all but a small percentage of what is annually produced, and therefore while the overstock is being produced the cost of it is largely consumed in the expenses of living on the part of the producers and laborers. Hence the danger of absolute bankruptcy, if the overstock be very large, unless the capital is large in proportion, and under all circumstances the certainty of loss, and discharge of laborers. There may be ill-directed production which results in almost or quite total loss. This occurs where it is uncertain in the beginning, or becomes such in the progress of the work, whether the result will pay. If a man were to undertake to build a pyramid, it would be reasonably certain in the start not to pay; when merchants and speculators in England undertook to raise cotton in India, and invest in railroads and other undertakings in foreign countries, there was a prospect of success in the beginning, but the investments in cotton culture were ill-directed, because if ever destined to be a success long time was required to bring it about. After all, therefore, the investment in cotton culture as well as in railroads and other undertakings was one of excess. Too much money was invested; the error was not in making any investments at all, but in investing too much. To affirm as most writers do that a banking, commercial, and industrial crisis arises from unproductive investment altogether, from the consumption of food, clothes, etc., by the laborers, for which nothing valuable can be shown in return, is to affirm that men borrow money and expend it in something beside production; it is to put one of the effects in the place of the cause. The crisis of 1866 in England presented its banking in a marked degree over its industrial phase, because the labor was largely invested abroad. There was at home an industrial crisis, but that crisis had begun long before from the scarcity and high price of cotton, and other causes. The crisis of 1866 resulted partly from the fact that cotton could not be obtained from India so as to compete successfully with American after the close of the American civil war in 1865. The crisis of 1873 in the United

States was not the *result* of the unproductive investments made. The crisis and the unproductive investments, on the contrary, were both results in an inverse order of another cause, and that cause was overproduction, which, because in excess and so far as it was in excess, was undoubtedly ill-directed. Its excess had two elements, which it is important to distinguish. The first in order was excess of production or production of relative necessities in advance of population and the absolute necessities of life. Such excess has become much more liable to occur by improvements in machinery and processes, and the economy of labor which follows. It results from this that the world is or would be benefited greatly, if the labor thus saved could be redistributed. But if redistributed, where should it be placed? At or near the base line of production undoubtedly; and then we should have a country equal to, and rather in advance of, city and town growth. Native population in our manufacturing districts does not show a healthy increase: we must expect strikes, violence, and crime on an enlarged scale if the process of turning away thousands of men who are engaged in manufacturing, and converting many of them into vagrants, is to be repeated. There has been undoubtedly an excess of cloth, of iron, of lumber, and materials. That excess is now being compensated by diminished and cheapened production and average will be the result. If the average could have been maintained all the time heretofore as the practical result of the forces at work, according to M. Say's demonstration, it would be maintained now and hereafter, instead of excess and defect. There would have been all the time rather more laborers at the plow, wages would have been steady, iron and cloth would have commanded and would now command prices to be found by adding the highest to the lowest prices and dividing by two. But it is said by the writers referred to that a crisis comes in so far as the work accomplished results in an almost or quite total loss; that the results in the shape of railroads and rolling stock, mills, etc., do not pay, and hence the crisis because the producers lose the amount invested. This is a monstrous

fallacy. Doubtless in most cases there is either bankruptcy or great loss to the producers and investors, but the railroads, if they have bankrupted any of these, have caused a gain to the landed interest of the neighborhood equal to the loss. These producers and investors have merely undertaken to bring to market extensive regions which otherwise would have remained without, and if the debentures were scaled down to correspond with present cost of materials for roads in good credit, many of them would pay now and all would pay soon. In like manner, if the overproduced cloth, lumber, etc., goes into second hands at present prices, it can still be sold at a profit, but time is required for consumers to catch up with producers. The idea that the producers of the relative necessities adapted to the present state of civilization have been for years not only throwing away their time, but producing things utterly worthless, is entirely at variance with the truth of the case. It is, in point of fact, simply a question of greater or less excess for the most part, although some cases, like that of raising cotton in India, or building a railroad where population never can overtake it, may constitute exceptions. It is relative excess, then, and still more enormous cost, which always accompanies excess, that in the United States especially have brought on commercial and industrial crises. It further appears that if prices had remained steady the results would, at those prices, pay. But I have demonstrated in other chapters that steady prices with a rising scale of production are impossible. If real commodities could be exchanged for each other as readily without as with the aid of money, and if money were therefore entirely dispensed with, I have demonstrated clearly that overproduction to any great extent would be impossible, because the prices of the overproduced articles would necessarily fall: the greater the overproduction the greater the fall. On the other hand, the absolute necessities of life which the producers would have to borrow for themselves and workmen, while the overproduction was going on, would thus be relatively underproduced, and would rise as much as the others fell. But with the use of a substitute commodity,

money, prices are all reckoned in money: the greater the overproduction in any quarter the greater the amount of the substitute put in circulation by being paid to the workmen; as in the other case in the absence of money, the greater the overproduction the larger the amount of the necessities of life the producers would borrow for their workmen, as well as for themselves and the sellers of raw material.

But as the producers, in the absence of money, would be compelled to borrow the necessities of life, borrowing the more the more they overproduced, if it were possible and apparently profitable to do so, they would thus cause an expansion of production in their quarter in excess of its expansion in other quarters. This would be an expansion of production upon credit by loans analogous to the expansion which actually takes place by means of money loans; and it is well known that continual expansion, for a time, followed by continual contraction, for a time, of loans, takes place by means of banks, as I have shown elsewhere.

In all the cases referred to, this expansion of production is in advance of the market of consumers. For this reason, as well as the fact that it is accomplished by loans, it may well be called Production upon Credit.

PRODUCTION ON CREDIT AND SPECULATION.

Production on credit I have so called because it is effected by means of loans upon the credit of producers, and because being in advance of the market of consumers, this branch of production, which is in excess, has borrowed a corresponding amount from that which is not in excess. The former thus becomes debtor to the latter and the latter creditor to the former in the grand system of exchanges. The debt is paid by the sacrifice of the overstock below cost, and falling off in product afterward, as happens in all commercial and industrial crises. If the foregoing analysis is sound, what is called speculation is not the cause but the result of the causes already referred to.

Overproduction expands prices and, for a time, expands commerce. The extension of railroads, the growth of towns

and cities, and a general advance in real estate, are some of the results. It is not the expansion of speculative value in such property which causes expansion of production and expansion of loans to take place, but the expansion of the two latter which causes the expansion of the former. Production is the great business of the world ; speculation the occasional business of a small part of it. It is not possible that the chief business of the world or of a great country can be controlled by the business of a small part of it ; the greater force undoubtedly controls the less. By keeping production in harmony, therefore, all other things will be kept in harmony. But to keep production in harmony prices must be kept steady ; there must rather be such a currency in use that loans cannot be made to such an extent as to enable producers to expand the production of the relative so far in excess of absolute necessities as to bring on a banking, commercial, and industrial crisis. To effect this there must be some fixed point beyond which loans cannot be made. It is excessive production on credit, leading to excessive speculation which, more than anything else, causes such an uneven distribution of wealth in England and the United States. With steady prices there would be fewer failures and vastly less speculation. The most available plan of making prices steady I have shown elsewhere.

When a large proportion of business men fail in every few years, it is impossible that a fair distribution of wealth and capital can be going on. If the larger part become bankrupt, or very nearly so, the actual gains made are confined to a few : railroads and lines of business fall into a few hands, and, although one man's gain is not entirely another's loss, this condition of things naturally tends to throw business and capital into a few hands. The workmen who are turned out of employment, entirely without any conception of the source of the blow that has struck them, naturally attribute it to the owners of capital, many of whom, through bankruptcy — and, in fact, as I have just stated, the most of whom — have suffered in company with themselves. Thus their minds are prepared for the introduction of the most absurd

and impracticable ideas which, so far as they can have any effect, defeat their own object and overwhelm the workmen and the producer in one common ruin. All of them are entirely ignorant of the true cause of their grievances.

If prices could be kept as steady as they are in France, wages would be steady. No more workmen would be found at any employment than ought to be there, and no more than could always stay there. There can be no permanent overproduction in any quarter, because excessive is followed by defective production. The result of steady prices, therefore, would not be to produce less than now, but to produce as much, and even more, upon the average, because consumers would be able to take more upon the average. To produce in excess is to produce not only upon credit, but unduly expanded credit. The use of money itself is the use of a kind of credit. Whoever has paid commodities for money stands credited with commodities while he holds the money. If he produces a new commodity by the expenditure of the money for labor and material, either in his own proper person or representatively through another by loaning the money, he has parted with that credit to another, who, instead of using it in exchange for a commodity already existing, has exchanged it for a new one, in expectation of a consumer. If the latter credit is soon canceled by a consumer there is no undue expansion of production, and no undue expansion of producing credit. If the stock of unsold products, instead of being sold to consumers, in due time, however, continues to expand and accumulate, the credit referred to is unduly expanded; and this kind of expansion I have elsewhere called, from a money point of view, an undue expansion of circulation, — undue, because it continues to expand day by day until a crisis, and then it begins and continues to contract day by day. When it begins to contract, no enterprise on the part of producers, and no effort on the part of lenders, can change the force of the contraction and convert it into one of expansion.

The contraction of circulation is the subjective result of a power greater than itself. The power at work is the con-

traction of production. This power is now at work (1877) in the United States. It is the opinion of some writers upon money and exchange, that a free issue of inconvertible government paper would have the effect of stimulating production. Such an issue at this time would have precisely this effect: it would depreciate the value of all the bank and government paper now outstanding, and bring itself and these to one common level. It would nominally raise the value of merchandise, and enable the holders to sell at a profit, so far as it enabled them to pay the debt they owe for that merchandise in a depreciated currency. But it could never accomplish what the theorists who support it claim for it,—it could never stimulate production to any important extent, and probably not in the slightest degree, for the unanswerable reason that it would depreciate so fast that the cost of production would immediately catch up with the prices of the merchandise already on hand. To successfully stimulate production in such a way as to call back a single workman to the forge or mill would be as impossible as to stop the contraction of a mass of molten metal, which is out of the furnace, without putting it back into the furnace. The forces at work are entirely uncontrollable by any such contrivance.

There never was any lack of money yet when the forces of production were ready to expand, and no money is of any avail when they have unduly expanded, and have begun or are about to contract.

Steady prices are not a cause, but an effect. They are the effect of such a distribution of money as we see in France, where, because money is distributed in the tracks of commerce in every producer's (that is to say, holder's) hands, an excessive and undue expansion of its use (that is to say, its circulation) cannot take place, as it may and does take place where it is consolidated in a series of reserves, as in banks in the United States and England, which are not required to keep any definite reserve. Money being a substitute commodity, or a substitute put in the place of a commodity, and naturally distributed in proportion to the

distribution of commodities (that is to say, of commerce), this distribution may be artificially or forcibly disturbed, and so far production will be disturbed by the variation of prices. The rise of prices will, for a short time, and while it is going on, make production, especially of luxuries, profitable, but it cannot last long. Again, one or more articles of merchandise may be advanced in price by speculative purchases and sales on credit. The recoil of prices and the resulting losses in such a case Mr. Mill calls a commercial crisis; and such it is in a minor sense, but it is very far from being a crisis with commercial, industrial, and banking phases. It is a simple and not a complex affair. Mr. Mill has confounded the two by confounding their causes. He makes credit the cause of all crises, whereas the speculative sales and purchases of one or more articles of commerce, like tea and sugar, on personal credit, are wholly different from a crisis which, having first carried up the prices of all articles of commerce, ends by carrying some of them very much and all more or less down. Credit sales, as I have demonstrated, raise only the price of the merchandise sold on credit, and not general prices, because they give no extra circulation to money; production on credit cannot be carried on without loans of money, which increase its circulation precisely in proportion to the excess of that production, and therefore precisely to that extent in advance of consumption; and this produces what is called bank debt. This increase of circulation does not act upon the price of one article of merchandise alone, but it raises all prices; hence it raises not only the price of the necessaries of life, but, while it is going on, even the price of the articles over-produced, giving it the semblance of a real rise. The difficulty with Mr. Mill's analysis is, that he did not carry it far enough to discover what causes a rise or fall of general prices, and in fact not even far enough to discover that there is such a thing as a general rise of prices as distinguished from the rise of price of only one or two articles, or any number less than all; nevertheless he is an able writer, and he has illustrated some important truths. But there is

still another speculative rise of prices, which may occur in part from other causes than overproduction. A sudden rise may occur by reason of war or apprehended scarcity, but it hardly constitutes an exception. A general rise of prices cannot be maintained long, unless there is an increased circulation through new loans, which imply new production, or issues of inconvertible government paper. A rise embracing nearly all articles might be, and has been, maintained for some time by the aid of credit, where ports have been partially or wholly closed by war; but in time of peace, with open ports and free internal intercourse, the only cause of a rising scale of general prices, in the absence of government issues, is a rising scale of production in one quarter out of proportion with production in another quarter, sustained by bank loans or by inconvertible or imperfectly convertible bank-notes, but for the most part by bank loans.

The grand social problem of the day is to discover the cause of inharmonious production; to find out why it is that the absolute necessities of life, never being overproduced, the relative necessities are periodically overproduced, and why, while being overproduced, instead of at once falling off in price they rise, on the contrary, in price, and carry all other prices with them until the cycle is completed with a commercial, industrial, and banking crisis. If it were not an extremely difficult and complicated problem it would have been solved ere this. The constant repetition of the abstraction that there can be no overproduction has, from the exceedingly complex developments of money and banking, served to keep investigators back, but the paramount difficulty has arisen from mistaking one very important effect for sole cause, the cause being masked by the exclusive use of monetary terms. Because great losses result from want of harmony in production, it is said that a crisis arises from unproductive consumption. This I have demonstrated in various forms to be an error.

From 1865 up to 1873 vast numbers of workmen in Great Britain and the United States were employed in making pig

iron, iron bars, cloth, lumber and building materials, and during this time they were fed and clothed, and consumed a much larger proportion of absolute than of relative necessities; and the products of their labor being demonstrated at last to be in relative excess, brought on a crisis. The United States exported enough of the absolute necessities of life, and articles which cost absolute necessities, to pay for the articles of relative necessity imported. These relative necessities imported cost, for the most part, directly or indirectly, absolute necessities exported:¹ the absolute were exchanged for relative necessities. Precisely such was the case with the absolute necessities marketed at home: they were exchanged for relative necessities of home production, and after the exchange was completed, no more absolute necessities were left to exchange, but a large surplus of the relative was left on hand, with an ability to create a much larger surplus; and this was the crisis. Now to determine with absolute certainty whether unproductive consumption is the cause of a crisis is very easy from the analysis I have made. Unproductive consumption is loss, but loss is not the cause of the crisis: loss, on the contrary, is developed by and results from the crisis. The crisis gives note of its approach before it comes, and when it comes years may be required to demonstrate all its effects, as mercantile failures long postponed, and now taking place in 1877 in the United States, are daily showing. Therefore, to say that loss having *resulted* from the crisis, the crisis having resulted from overstock, and overstock having occurred by the instrumentality of producers, who, by aid of bank loans, have obtained the absolute necessities of life on credit, and the relative necessities they have meantime consumed by an exchange of credits with each other, this final *result* in loss is the primary cause of the loss itself, is to affirm that the final result is the cause of the final result. It is impossible to understand so complex a matter without stating the case as it is plainly, and tracing back from the effects to the primary cause, and then showing

¹ Cotton exported cost absolute necessities consumed by the producers of the cotton and their laborers.

what the case would have been had the primary cause never been in operation. Thus, overstock being the cause of the crisis, the producers of raw material and finished product, and their laborers and operatives, have expended in living the cost of the overproduction, less say five per cent. Had there been no artificial and unduly stimulated demand for their product by means of loans, there would have been no rising scale of prices and therefore no overstock. There being in that case no overstock, the surplus of laborers and operatives who have made it would have, if living themselves, been earning a living at some other employment, and that employment would have been the production of absolute necessities, for it could by no possibility have been anything else. This would have been attended with a greater abundance and hence cheapening of the absolute necessities of life; a more regular and even supply of the relative necessities and steady prices; the exchanges would have been in harmony, because after making them there would be no overstock in any quarter.

As it is impossible to have any true conceptions of the reasons why gold and silver coin, if its circulation is left to take its natural course, following the tracks of the commercial distribution of commodities effected by its agency, and without banks to increase artificially its circulation, is the steadiest and safest of all currencies, without understanding how and why that steadiness is promoted by metallic coin being the money of the whole commercial world, so it is equally impossible to understand how and why the distribution of commodities is disturbed through overstock, without taking into account the exchanges between portions of the country having overstock, and between that country and the rest of the commercial world. The United States would have suffered much less from overstock if, prior to 1878, they had imported only one third of the actual imports of iron, of cloth, and dress goods, and produced that amount at home or dispensed with it. So if they had produced at home only one third of the actual product, and imported from abroad only to the extent of the remainder, or dis-

pensed with it, the crisis would have been slight, because in both cases little or no overstock would have remained in the hands of merchants and other producers in the United States. Hence it follows, that in respect solely to the matter of overstock, which is the cause of crises, it is immaterial whether the relative necessities for which the absolute necessities are exchanged are produced at home or abroad, provided always there is no overstock at home after the exchanges are made, unless it is soon worked off and not allowed to accumulate. It follows further, that an agricultural nation, or one whose principal business is agriculture, can never suffer from a crisis, and that in the country where overstock gives rise to a crisis the overstock may have arisen from the want of consumers either at home or abroad. In Great Britain the present commercial crisis arose from want of customers abroad; in the United States it arose from want of customers at home. The advantage, in the United States, of home protection by tariff was almost annihilated by the expansion of prices (in the rising scale) of the domestic as compared with those of the foreign article. Prices in England, it is true, were at the same time in the rising scale, but they were limited by convertibility. Had English prices been kept steady by a steady circulation, England would have produced more steadily at steady prices, and the United States would have lost less; whereas, by exchanging their debt, which collects a heavy tax annually from the people of the United States, for poor iron at enormous prices, and for other goods not needed, they have impoverished themselves while she has lost by overproduction, and there has been no fair exchange. The question of tariff is entirely subordinate: it is as the strength of the child against that of the giant. It follows, also, that if there be any cause of grievance it is Capital against Labor, not Labor against Capital. It is childish—at least it seems childish—to speak of such a cause, but imagination is sometimes stronger than fact. Take the Northern Pacific Railroad, as an example. Widows, clergymen, bank officers, merchants and their clerks, farmers and operatives of all sorts, invested their means in this enterprise;

and what did their means consist of? Largely of money obtained for United States six per cents. And how did they obtain the six per cents? With money taken in exchange for labor, services, merchandise, and absolute necessities of life. These were freely given to support the laborers who made pig iron, rails and road-bed, in exchange for their work. It was nearly a dead loss of capital to support labor in producing an article in excess. Is capital to be blamed for doing so? Is labor to be blamed for doing so? Both were stimulated by forces more potent in moving than they in resisting, but the dead loss fell on capital, for that has had nothing in return; labor had its support, which is ninety-five one-hundredths of the average reward labor of all kinds, both of body and mind, obtains. If there be any cause of complaint, common to both labor and capital, it is the fact that the whole subject is so complex, the active causes of derangement so masked, and the forces in operation so difficult to master, that a remedy has not yet appeared.

CHAPTER IX.

INTEREST, RENT, AND TAXES.

INTEREST and rent are generally treated separately, but they are both return made to the lender for the use of his capital. Interest properly includes discount, for discount is interest in advance, and both are the designated profits of the lender paid by the producer as the lender's fixed share for the capital he advances. Money, it is true, is not real capital any more than it is a real commodity ; but as real commodities not yet sold to consumers may be regarded as capital, so the conventional commodity money, which takes the place of a real commodity, may also be called conventional capital. It is the quantity of commodities or merchandise not yet designated because not yet purchased, and not yet valued because not yet sold, which constitutes the capital always ready to be exchanged by the commercial world for all the money in each holder's hands. Until such purchase and sale take place, the money is not real capital to the holder, but the merchandise, always ready to be exchanged for it, is ; and when exchanged, the latter reduces by so much the capital of the seller, and enlarges by so much the capital of the buyer, unless purchased for consumption, and in that case it is so much capital consumed. Whether the money be metal, paper convertible into metal, or paper inconvertible, but nevertheless universally current, makes no difference, except as to the purchasing power of the different kinds of money and the relative steadiness of prices. Whoever pays tax upon money pays tax upon conventional capital which produces nothing itself, and which by no possibility can produce anything. The daily average amount of money in the possession of each individual, therefore,

which constitutes nearly all the money there is, is so much unproductive capital in itself, — absolutely essential, nevertheless, for the transfer of capital and its fruits. It follows that money loaned, for which a bill or note secured by quick capital, or a mortgage secured by fixed capital, is given to the lender by the borrower, while it is in the hands of the lender or borrower, is unproductive capital altogether, and such is also the mere bill, note, or mortgage considered by itself as evidence of title. If real capital, which is productive, ought alone to be taxed, either all debts receivable and all money on hand should be deducted, taxing only the tangible and real capital, or all debts payable and all money on hand deducted from the total of real capital and debts receivable, taxing only the remainder. The latter would be the most just, because the holders of all debt have in fact a charge upon real capital for interest and principal, subject to contingencies, which ought to be estimated and allowed in making assessments. The question of equal and just taxation has an important bearing on the question of interest, and I have therefore examined it here.

The unequal and unjust discriminations against banking capital at this time must be at least partially compensated by interest.

Ought banking capital in the shape of money and loans to be taxed at all? Surely not, if money at interest on mortgage or personal security ought to go free. Money produces nothing, but mortgages do. Taxes may be assessed against capital instead of income, but income pays them for the most part, and that which pays is that which ought to be assessed. The whole question resolves itself into one of income at last. If income alone be taxed, the way is plain; but if capital be taxed, debts receivable, including mortgages, together with all other capital *minus* all cash on hand and all debts payable, would furnish the true amount for taxation, and would bear most equally upon the receivers and payers of interest. The possession of money, then, being the evidence of an unexercised right in the holder to its equivalent in real capital, he, by a loan, parts with that right to a bor-

rower, who exercises it in his stead, and who, agreeably to the demonstration in the chapter on Production, and demonstrations in other forms in other chapters, is always a producer, or puts himself in the place of a producer, except in cases of fraud or accident. Hence we may say that interest is the guarantied rate of profit promised by the borrowing producer to his partner, the lender, for the use of his conventional capital, called money, that capital being at the same time guarantied likewise. If interest is prepaid in the form of discount, the lender's share of profits is not only guarantied, but paid in advance.

THE DIFFERENT KINDS OF INTEREST.

Interest is of four kinds : 1st, that paid on productive real estate in the shape of farming lands, for money loaned ; 2d, that paid on purchase-money of such lands ; 3d, that paid on other land ; 4th, that paid on loans made from capitalists and banks for all other purposes.

The first and the second kinds of interest resolve themselves into one, and the third differs in no essential particulars from either, because, as shown in the chapter on Production and the chapter on Bank Credit, the chief business of the civilized world is to produce by labor, acting upon capital, aided by natural elements and forces, and to distribute by means of exchanges the resulting fruits which, until purchased for consumption, may be called capital. Production is all the time taking place, and continually adding value to these fruits, until the last change in quality and location takes place, and the fruits are exchanged for actual consumption. The chief business of the world is to produce and exchange, and therefore the office of money is to exchange commodities, and labor and commodities, for itself as the universal conventional commodity in the shape of units of value, purchase, and payment, as already shown. To purchase fixed capital in the shape of land, and to loan money upon its security, are therefore only incidental and occasional performances in this grand drama of perpetual production and distribution. The money in such cases in the United

States is loaned to purchase the land, or to pay installments of principal and interest due or about to become due upon it. When occasionally loaned for other purposes, it is mostly to pay for lasting improvements or labor, to increase the product. When the latter is the case, however, the produce can now always command a market; and as there can be no overproduction of absolute necessities, there is no undue expansion of circulation through the loan. The lender in this case is not a partner of the borrower while the security is under all contingencies sufficient to pay interest as well as principal; but when it is not, he is, because he must then rely, not only upon the capital, but also upon the skill and good fortune of the borrower, as a producer in other respects. Loans of this kind, however, being on the whole subject to fewer contingencies than others, the rate of interest is subject to less fluctuation than in other cases. Interest being paid, moreover, out of the rents or profits of the real estate mortgaged or sold, and the profits of land being steadier than the profits of other business, it follows, for this additional reason, that the fact must be as stated. When the profits of farming land are large, and the increase in value rapid, as in the United States, the rate of interest on mortgages must necessarily rule high, although capital may be abundant.

Production being only sufficient to support the producer and his coadjutors the laborers, and restore the waste of capital, with a small margin of profit, interest chargeable to real estate, unless paid out of capital, must be paid out of the margin of profit. The rate of interest will therefore depend upon the amount of that margin, relative abundance or scarcity of loanable capital seeking a market, relative demand for money to be loaned, and relative increase or decrease taking place in the value of land. Where railroads are being constructed at high prices for labor and material, and on routes that will not pay interest on cost, the immense losses which fall upon the projectors and builders are in a national point of view compensated, mostly by the rise of land in the neighborhood. The real national loss resulting

in the case, therefore, lies in building too soon for profit what would in the lapse of a few years be built with profit to *all*. There is also in a moral point of view a loss, resulting from the bankruptcy of the projectors and the turning away of laborers when a crisis arrives; prosperity is not an absolute but a relative affair.

It is impossible to understand political economy or social science without taking into account all the effects of bankruptcy and want of employment, as well as the causes. They tell immediately upon production, and thus discount the certain prospects of the future. The cost of the roads reappears as a credit in the enhanced value of land; the loss is therefore not actual for to-day, so far as there is to-day, on the footings of total national capital, no loss; but to-morrow there will be a relative loss, consisting of the difference between what are and what might have been the footings of capital.

Interest chargeable to land being payable out of the margin of profits, rent must be payable out of the same fund, and its rate will depend upon the same causes. As land rises in value by purchases, settlement, and markets opened by railroads, rents rise; as they fall in value (in the older settlements, for instance), rents fall.

TAXES.

Taxes, whether levied in the shape of internal, export, or import duties, upon general assessment, upon manufactures, upon sales, or by excise, are chargeable to the margin of profits of land before mentioned, and to the margin of profits of all other kinds of production. If a fair estimate of the net margin, after deducting all consumption, be five per cent., and the total average of all taxes, national, state, county, city, and town, be two per cent., out of a gross product of ten per cent., taxation absorbs two fifths of all that is left. This is an enormous draft upon the fund. Do rent and interest in the hand of the landlord and "moneyed" capitalist, or does the margin of profits, before leaving the producer's hands, pay the larger share of it? This depends

upon the relative activity of the elements before mentioned, and the difficulties of assessment. Some sixty and odd millions of United States four per cents have been of late subscribed for and taken in the United States, which, had they been liable to taxation, would scarcely have been taken at five and a half per cent. In order to understand where and how the weight of taxation bears, it is necessary first to study production and exchange. Production cannot be carried in any quarter far beyond the ability to exchange without a crisis, and with the crisis comes bankruptcy and loss in the quarter where exchanges cannot be made. But this inability to exchange never falls upon the product of that portion of land devoted to the production of the absolute necessities of life. Again, the consumers of products bought with taxes consume most, in proportion, of those products which are necessities of life. Hence it follows that although the relative activity of the elements before mentioned would, uninfluenced by any other cause, throw the weight of taxation sometimes into the one and sometimes the other scale, nevertheless the counteracting causes before mentioned — constant ability to exchange, and hence stability and permanence of margin of profit, and greater relative consumption by consumers — necessarily throw the greatest weight of taxation upon land devoted to that kind of production.

Before a crisis, when the production of the relative necessities is in excess and prices are high, the appearance of prosperity gives a high apparent value to the capital engaged in that kind of production, and it pays not more than its apparent share, but more than it is able to bear of taxation; and when, through bankruptcy, its inability to pay so much is demonstrated, the weight of taxation then taken from it is carried to land; the economy that follows is abstinence, not so much from the absolute as the relative necessities of life, until equilibrium is restored. Land, then, being most able to bear the burden, apparently part of the time, and actually all the time, bears the largest proportion of it. This resulting depletion diminishes the margin, and reduces by that amount the fund out of which interest and rent are payable;

and the tendency must be to a division of this loss between them.

Interest and rent are payable out of the same fund, but taxes, whatever shape they assume, must be paid first out of the same fund, and can be paid only where there is ability to pay, and, on the whole, leaving out falsehood, fraud, and inability to make just assessments, in proportion to ability. The ancient dispute about protection of capital devoted to the production of the relative necessities of life is not as important, then, as is sometimes supposed. Given the revenue which must be collected, the larger the amount the less there will be left to exchange between the producers of absolute and relative necessities after the collection is made, and in the end the loss will be distributed. Before this final distribution takes place, however, an immediate and direct loss falls upon the consumer of those things taxed the highest; and as a stimulus to the production of those things up to a certain point this may be an advantage, provided increased production in this direction be desirable; but in order to have any effect prices must be kept steady by a stable currency, otherwise the loss is greater than the gain. Taxes, moreover, falling upon production, for the most part money at interest and secured by land, may well be taxed to the owner of the resulting debt, wherever he resides, but the taxation should never fall but once. Indebtedness of all kinds ought to be deducted, and a net assessment of the remainder only made. If we assume that it ought not to be deducted, as a matter of justice as well as of state right and sovereignty, then undoubtedly the money at interest ought not to be taxed wherever the creditor may reside; but the premises assumed are false, because the interest and principal are paid mostly out of the margin of net profits before mentioned, as well as the taxes; and no loss of capital for purposes of taxation occurs to the state where the lands lie by allowing the land-holder to deduct the debt, because by the loan he has brought into the state for taxation as much as is lost for the time to taxation. The only difference is that what he has thus brought in, unless laid out in permanent

improvements upon land, is not as sure and unfailing a source of revenue as the land itself; but this is one of the necessary incidents of commerce and intercourse, and loss and gain of productive capital for purposes of taxation are on the whole distributed fairly.

INTEREST PAID BY PRODUCERS ON CREDIT.

It remains to examine the subject of interest paid by producers of the relative necessities of life, who borrow upon the credit of what seems to be quick capital in the shape of money, and then produce on credit.

It has been demonstrated already in the chapter on Production and elsewhere, that loans are made to actual producers, with few exceptions; and such is undoubtedly the case. Whoever buys raw material and labor, and by the action of the latter force upon the material produces a new commodity or a new result, produces upon the strength of his own capital, if he does not borrow; and there is no danger, so far, of any material overproduction, ill-directed production, inharmonious production, or by whatever other name it may be called. Such production can lead to no crisis, industrial, commercial, or banking, because such a crisis results from debt, and debt comes from inability to sell the products of labor. But when the production has been carried on by the aid of loans, in whole or part, and sales cannot be made to pay all the money loaned when due, — whether the money were borrowed in gold eagles, bank-notes, or what is erroneously called bank credit makes no sort of difference, — the production has certainly taken place on credit and confidence of future sales; and it is as certain that wherever production has taken place by means of bank loans, the banks have thus given the money loaned a credit circulation. Instead of holding the money they loan as producers and capitalists, either actually or representatively, they hold it only as depositaries, subject at all times to the call of the depositing capitalist, who loans the same amount out of his bank balance, by means of checks, as he would do out of his strong box or safe. Bank loans are, therefore, so much in excess of all loans possible, were

there no banks. Hence the additional circulation they give money through their loans is a circulation *on* their own credit, and not a circulation *of* their credit. Were there no such thing as money, were all exchanges of commodities freely and directly made, and were there bankers who received and delivered the commodities belonging to capitalists, the deliveries of commodities being made upon the checks of the capitalists as they loaned from time to time, it would be impossible for the bankers to make any, certainly but a small amount of loans on their own account, because the commodities withdrawn by borrowers would be consumed by them and their workmen, and not to any great extent redeposited like money. In these cases, however, the borrowers from the banks would certainly produce upon credit, however small the amount might be, because they borrow upon credit from them as they did from the capitalists. Precisely so with a metallic currency or any kind of currency without banks. The borrowers receive gold and silver, which have been paid by consumers to producers for an equal amount of commodities which have gone into consumption, and may therefore now be reproduced to fill the void thus created, without any expansion of production beyond the volume existing before they had gone into consumption. If, however, any additional loans, over and above the volume sufficient to fill this void, take place by the aid of banks, it follows from the premises, with absolute certainty, that the void is more than filled; and not only is the resulting production like that arising from all loans on credit, but the banks making the loans, even if they pay out gold and silver, loan upon credit, or more properly, as partners of the borrowers, have taken upon themselves jointly with them the business of producing upon credit in excess of actual consumption. As loans increase, they continue to increase the volume of production more and more in excess of the amount, sufficient to fill the void created by consumption. The interest paid to banks upon loans is, like all other interest, payable out of the margin of profits. It is a guaranteed share of the profits, and usually prepaid in discount. As

shown already in the chapter on Production, the scale of production and the scale of bank loans rise and fall together. Want of harmony in the grand field of total production is the result; rising prices look like the evidence of rising profits, but turn to real losses in the end. Such being the fate of production in the quarter where bank loans are used, such must necessarily be the fate of interest which is paid, if at all, out of the loans which cause such production.

When bank loans are steady at the end of the descending scale, and before the commencement of the rising scale, interest is steady; when loans rise interest rises, because the joint fund of profits rises. But when a crisis is impending and threatening, interest is no longer determined by the amount of the joint fund, but by the absolute necessities of the case. When sales can no longer be made, and solvency depends entirely upon the ability to borrow, the risk of loss is increased at the same time that the banks are alarmed at the prospect of possibly becoming bankrupt themselves, and rates are made according to the risk. Now if all values depend entirely upon the quantity of labor expended on them; if gold and silver coin are commodities in the ordinary sense of the term; if banks put their credit—in other but equivalent words, their confidence—in circulation instead of putting into circulation, upon their own credit, the money of their depositors in excess of the circulation those depositors give the money themselves, thus enabling the latter to increase to that extent production on credit in excess of production in other quarters; if it be true that there can, by the aid of bank loans, be no temporary excess of the relative as compared with the absolute necessities of life, and with population, which doctrines I have attempted to refute in the foregoing pages, in order to put the science of production and exchange on the basis of truth and fact, then the law governing the rate of bank interest, and by consequence interest of all money loaned to producers of relative necessities, ought not to be, and cannot be, as I have stated it. But every banker who has observed knows well that interest fluctuates precisely as I have stated; and many bankers

know it to their cost. It is not alone the quantity of money in the market ready to be loaned, and the demand for it, that determine rates of interest as primary, for they are only secondary causes. The phrase, quantity of money, has in science, that is to say in truth, no meaning whatever by itself alone, as referring to an active original cause of loans. Wealth is not absolute but relative, and as a national whole is more a condition than an entity by itself; it is in its highest state when all parts of the field of production are not only worked with due energy but are also in harmony; and no one is made bankrupt through inability to exchange the surplus of what he has produced for want of a market. The highest condition of wealth possible is the utmost possible advance of production in every direction with the least possible waste, subject to the foregoing law.

In order to carry on the production and exchange of *civilization*, however, there must first be inequalities in the distribution of capital and its fruits. While civilization could not exist without this inequality, and without more or less of what is called luxury, there are, however, tendencies to excess, arising from unsteadiness of production, profits, interest, and prices. Excess rules when prices are in the ascending, abstinence when they are in the descending scale. And what is this abstinence? It is for the most part decreasing consumption of the relative necessities of civilization, especially those called luxuries, whose production has been in excess of absolute necessities. Steadiness of production, of profits, interest, and prices, can alone produce a reasonable average out of all this excess and defect.

Interest, then, is the share in the profits of production, paid sometimes in advance by way of discount, not only to the moneyed capitalist who lends money upon bills and notes, on the security of quick capital, and draws his check upon a bank for the money, but also the share in those profits paid to the banker, who, by giving an additional circulation to the same money, enables so much additional production to take place over and above what could take place if he did not exist, and over and above the consumption which

has actually taken place. To enable the producer to pay this additional interest, or rather to put him in the way in which he expects to pay it, he must engage in additional production. But is the profit fund arising, or supposed to have arisen, from this additional production alone devoted to the payment of the banker's interest? Surely not. There is but one fund, and all producers and all lenders share the gain or loss. Gain or loss is a hazard or lottery, to which all producers through money put in circulation on bank credit are subject, and all lenders are thus forced to share the loss. The most prudent and conservative make the most gain, the least prudent the most loss; but all gain or lose, according to the amount they lend, and the character, capital, and good luck of those who borrow. If no bank loans were made, it is certain that capitalists who would then make the only loans possible, in order to enable producers to produce on credit, would run but little risk of capital, and would obtain steady rates of interest, because production would be steady, and the profit fund steady. In order, therefore, to attain to the highest possible rate of steadiness in rates of interest on bank and other loans, some definite point for all banks must be fixed beyond which loans cannot go, and at which, therefore, the bank circulation of money upon bank credit, and by consequence further production upon credit, must stop. That point has been designated by the clearest demonstration in the foregoing pages, in various forms, and to furnish such demonstration has been one of the objects of this work. With such a point fixed and never transcended, the difficulties before mentioned will to a large extent vanish. Banks of issue exclusively, *whose notes are always and readily convertible*, do not cause circulation to take place upon credit to any considerable extent, and hence their loans do not materially increase production upon credit, as do the loans of discount and deposit banks when loans are in the ascending scale. This is matter of the clearest demonstration, although universal opinion seems to be to the contrary. The reason is, that their paper attains and maintains an average volume, which

cannot be materially increased or diminished, taking the place of the same amount of coin, and virtually increasing the total of metal in use as money, by its volume; and because, over and above all other considerations, notes issued by a bank in the absence of all deposit and discount banking can rarely be used in payment for labor and raw material but once before they or an equal amount of metal are returned to the issuing bank in payment of the loan, or the bank is called upon to redeem them in coin, not out of a dead reserve but out of the commercial world's stock at large, thus balancing the expansion of circulation by a speedy contraction. I say out of the commercial world's stock, because, as shown in a previous chapter, metal circulates *with* the notes, and is not retired by the notes; metallic circulation outside of banks replenishes bank reserves, and they replenish circulation. Any one or more banks of issue in the absence of all deposit and discount banking may continue to loan to producers in excess, however, after they are thus called upon to redeem, but their action is independent of other banks, and they will soon exhaust their capital, as in the case of the Bank of Ayr in Scotland. Few banks of issue purely are now to be found, but their working, before the modern system of deposit and discount was developed, may be ascertained by reading Smith's "Wealth of Nations," especially pp. 225-258. There is a limitation short of a banking crisis, to the ability of a bank of issue, whose notes are perfectly and conveniently convertible, to sustain production of any kind upon credit, because the amount of its notes which can be kept in circulation depends upon the amount of coin circulating in the country of issue; and the latter amount depends on the amount of coin circulating in the commercial world. Rates of interest, therefore, are comparatively steady with banks of issue because production is comparatively steady; the margin of profits is steady, and therefore interest, payable out of that margin, must be steady. Steadiness of production, being the cause of steadiness of profits as well as wages, is then the chief cause of steadiness of rates of interest on loans. Bank loans in the

United States are made largely at certain seasons in agricultural districts, out of village, town, and city banks, to market crops. The demand for loans for this purpose, being sometimes great, because limited to comparatively short periods, carries up the rate of interest above average, but on the whole, and independently of this special demand, interest on such loans is more steady than on others. Nevertheless, the unsteadiness of production of the relative necessities of life, and the consequent rise and fall in rates of interest on loans to the producers of those necessities, unavoidably carries more or less of its influence to loans to other producers; and such all experience shows to be the fact. It is because after taking into account the relative necessities on hand (this embraces luxuries, so called), imported as well as produced at home, there is an excess, relative to and compared with absolute necessities, that rates of interest rise. The more these necessities increase the more population increases, and the smaller the surplus of the relative over the absolute. The relative increase of the latter is attended with the relative decrease of the former, dollar for dollar, because actual exchanges take place through the medium of the money employed. It is the use of money loaned to pay for labor and material, the products of which cannot be thus exchanged, which produces crises and causes variations in the rate of interest. When a surplus of relative necessities exists, if they were exchanged for each other indefinitely this would take place without producing any result, because it would not feed the producers, and money could not be obtained to aid the exchange between the absolute and relative, because there is no corresponding surplus of the absolute. The exchange is as impossible as to make a superstructure larger than the foundation.

On the whole, then, the greater the advance of the production of the absolute over the relative, the steadier the rate of interest. Increase of population alone, if we assume such an increase, sufficient in numbers to consume, and also according to the present state of civilization actually requiring that surplus to consume, would not dispose of, because they

would have nothing to exchange for it; nothing but an equal surplus of absolute necessities would accomplish, because it could alone furnish the means of exchange. Such a supposed surplus, however, is practically impossible, because population would be abreast of it, and then such surplus would vanish.

Taxes, being first payable out of the same fund with profits and interest, diminish the net rate of the latter by reducing the fund. If the tax rate is very high, there is so much less of the margin of profits left, and so much less to divide between borrowers and lenders, who are the joint producers. As the volume of production expands, the margin of profits *seems* to expand; interest, wages, prices, and the expenses of government rise. Those employed by the state require higher wages and salaries, but this is a small affair compared with the increasing expenditures of borrowed money in the United States by states, cities, towns, and counties. The resulting loss to the fund out of which producers draw their income in the shape of profits and interest is enormous, and tells directly, or with equal effect indirectly, upon the rate. If taxes take two fifths of the fund, or say two per cent. of capital, there is but eight per cent. left for wages, profits, and interest. There is no remedy but gradual payment of the principal, for bankruptcy will not wipe out municipal debt.

Were production of absolute in excess of relative necessities possible, and were bank loans expended on the production of absolute instead of being as they are expended on the production of relative necessities, and should a relative overstock of the absolute thus occur, then a crisis would result from that overproduction, as it now results from overproduction on credit of the other sort. The remedy would be of the same kind, and that would be to send one half the hands required to produce the overstock to the manufacture of relative necessities: the increased production in that line would then balance the remaining excess in the other. A balance could not otherwise be brought about between the two: no amount of exchanging could bring it about, by exchanges of one sort only, and the profit fund, and therefore interest,

would vary, as in the other case we find to be the fact. In like manner, the expenses of government and municipal expenditures of all kinds would increase, as for the last twelve years they have enormously increased in the United States. Increased and increasing taxation arises chiefly from the apparent increase of prosperity through a rising scale of prices, brought on by expanding production; and it is enhanced by inconvertibility and increase of bank or government paper.

MODES OF TAXATION.

As a matter of absolute and exact justice and equality, to secure as far as possible the equal distribution of the burdens of taxation, the taxation of income is the only possible mode in the abstract by which it can be effected. But in point of fact, equality, or even a fair approximation to equality, is impossible. Taxation of capital is more or less fair as it more or less, by the manner of assessing, brings about indirectly a fair taxation of income. If all owners of land were authorized to deduct their net indebtedness, including mortgages, from all the property they own, mortgages, and by parity of reason other debts, due by the owners of the land ought not to be deducted in the assessments of the owners of those mortgages and debts, but charged as an item for taxation, where capital is taxed instead of income. If neither mortgages nor debts of any kind are deducted from land assessments under any circumstances, and the owner of the mortgage or other debt is not allowed to deduct it, there is double taxation of the income of the land; first, by assessing total capital in the land, and thereby total income to the owner; and secondly, by assessing the total capital, of which the mortgage is evidence, which capital is no other than so many dollars and cents to be paid out of the income of the land, and, failing that, the land itself. If creditor and debtor reside in the same state, therefore, the same sovereignty taxes the same income twice, to the extent of interest on the debt. The land-owner pays tax, moreover, on an income he does not receive. Nor can he be reimbursed by borrowing

at lower rates in consequence, because the lender pays taxes on the same income. The loss through this unequal and unjust double taxation must, therefore, be mutually borne, or thrown, as it sometimes is, for the most part on the borrower. But suppose the mortgage or other debt to be owned in a state other than that in which the land lies. Double taxation results also in this case; but how is the state where the owner of the debt resides to tax all the income of its citizens, either directly or, by taxing capital, indirectly, unless it taxes the principal or the interest of such debts? The true policy of the state of the debtor is to waive thus far its right of taxation, and let the creditor pay the tax, because it will be made up to him in a higher rate of interest than he could obtain should the debtor pay it. But the question is a practical one. Whose fault, upon the principle demonstrated, — that taxes, interest, and other profits are paid out of the same fund, — is it chiefly that double taxation exists in the case supposed? Surely in the state where the land is situated. The exchanges between the East and the West, the “sea-board” and the interior, are made precisely upon the same principle as between the United States and foreign countries. Checks and drafts are like bills of exchange, — none of them pay debts, although it is commonly asserted that they do. They are only the instruments by which money is directed to be paid by the shippers of merchandise to the buyers of return merchandise, and the money is paid over to the latter, who invest it in merchandise to be shipped in the opposite direction, and thus indirectly exchanged, not by means of checks, drafts, and bills alone, but by money paid out through the instrumentality of these. If these are paid out directly for the return merchandise by the buyers to the sellers of that merchandise, the latter collect them *in cash*, or have them discounted in bank or elsewhere, and receive the cash. To assert that bills of exchange are anything more than mere instruments, that they take the place of money, is the result of the want of a rigorous analysis of the real facts in the case, — a fault which has hitherto prevented the establishment of any true science of exchange. The money loaned

by the East to the West, thus secured by mortgage, has carried westward money, or checks and drafts, to draw money on deposit, which has thus gone to increase western balances, which being transferred by check to the sellers of merchandise at the East, have carried westward to the borrowing states merchandise to that amount. The quick capital of the borrowing states has been, by loans, increased to that amount. This increase of capital, which we are bound to suppose continues more or less productive, has added so much to capital for assessment. Therefore, by allowing the land-owner to deduct the mortgage debt, the borrowing state loses nothing, because the amount is made up to it by the additional capital furnished through the loan. If both states tax, however, without any regard to the loan or its consequences, it may be said that the creditor's state has lost capital for taxation unless it continues to tax; and that the income is receivable there wherever the money may be loaned; that, in consequence of its taxation, the lender will partly reimburse himself by a higher rate of interest, and thus, instead of losing to the extent of the tax, he and the borrower will divide the loss caused by this double taxation between them. The whole wrong would be righted, and only could be righted, by throwing all taxes upon net income — were this possible — unless, as a matter of policy, a part were thrown upon the consumption of luxuries and stimulants by way of excise. But do luxuries and stimulants pay *all* the taxes actually assessed against them? Directly, yes; indirectly, no. The business of the world is production and exchange. If luxuries and stimulants, or any sort of commodities, pay a higher tax than other things, the ability of the consumers to consume, and therefore to exchange, is to that extent diminished, and the fund out of which taxes are paid to that extent exhausted; hence this field is limited. Under no circumstances, however, ought double taxation to occur, and yet it will occur, and continue to occur, until arrested, either by assessing capital in such a manner as to make taxes as nearly as possible proportioned to income, by taxing income alone, or, in addition to this, taxing luxuries,

and stimulants which may be regarded as luxuries, in such a manner as to throw a considerable part of the burdens of taxation upon the latter. The science of taxation is in a crude state, but no more so than that of production and exchange. Until the first lesson — that income pays all taxes — is learned, there will be both state and inter-state double taxation ; and until the second lesson — that money is a conventional commodity, and at the same time conventional capital, whose value lies not in itself as productive capital, but only in the as yet undetermined, because not yet designated, capital or commodities its owner will in the future exchange it for, and that to tax it is, therefore, to tax non-productive capital — is learned, there will be double taxation: first, by the states, and second, by the states and the United States. Taxation as a whole, on whatever production and, therefore, income, it falls, tells upon all production and all income. The producer who is overtaxed one hundred dollars has one hundred dollars less to exchange in products for the products of other producers. The tax in the shape of tariff paid by the consumer of an imported article is a part of the gross income of government, which, had it not been collected from the producing consumer who bought it, would have been collected from some other producer and paid in like manner to those who draw income and support from the government ; the fund is equally drawn upon and equally reduced in either case. A tariff, as a source of protection, benefits the producer of relative necessities in the United States, as well as elsewhere, in the exact proportion that he is enabled to produce and sell what he produces at a profit. If the cost of producing rises in proportion to the tariff imposed, and falls in proportion when the tariff is taken off, there results little or no protection ; sometimes the foreign and sometimes the domestic article will be cheapest. But it is reasoning from false premises to assert that the tariff paid by the consumer necessarily raises the cost of production in proportion. Had the tax not been paid in this form it must have been paid in some other ; there is no national loss in the case whatever, except to the profit fund, and that is un-

avoidable. The loss to the producer, who is protected, consists in the fact, that to the extent of the consumption of the foreign, in place of which he could have sold the consumer a domestic article, he has lost a market, for want of that protection which the tariff was intended to give him. Only so far as he makes sales under the tariff, which he could not have made independently of the tariff, is he "protected." Absolute protection, therefore, consists in absolute exclusion, and partial protection in partial exclusion of the protected products actually consumed. Where there is only a partial exclusion of the protected article, the tariff paid on the foreign article by the producing consumer, goes directly to the government as a part of its revenues, which, had it not been paid in this quarter by producing consumers, must have been paid by them in some other quarter; the advance in price on the protected domestic article actually consumed is a bounty paid directly to the producer of it, or indirectly to him through the merchant, and also an additional bounty paid to the merchant as a producer of additional value, in the shape of increase of profit upon increased cost through the bounty. The total of this increase of cost to the producing consumer diminishes his power of consuming, as the tariff on the foreign article, paid by the other producing consumer, diminishes his power of consuming in like manner. Hence the true object of all protection must necessarily be the same: to enable the producer of the protected article ultimately to drive the foreign article out of the market, by producing at such prices as will exclude it. Now, to compel one producing consumer, in consequence of rising prices, to pay a bounty to another producing consumer, is to take indirectly the property of A. by legislative decree and give it to B., without giving A. a day in court to object and defend. It can be excused only on the ground that the greatest good of the whole is paramount to that of a part; and that the net national product will, on the whole, in the end be increased in consequence; that ultimately the protected article will, through protection, be afforded cheaper than the foreign article could be free; and that in the mean time there is

no other quarter in the great field of production to which the capital thus invited to produce the protected article can apply itself as advantageously for the whole country. Assuming all this to be true, it is the duty of government, and it is to the interest of all producers, to enable the protected producer to produce as cheaply as possible, and ultimately undersell the foreign producer, even without the aid of a tariff. To do this he must have the benefit of steady prices.

To all producers on credit, steady rates of interest are also requisite, and these will follow steady prices. The money price of commodities and labor settles the fate for good or ill of the average producer on credit of relative necessities. It is loosely said by many writers, that all foreign trade and most domestic trade is barter. This is utterly false; and with utter falsehood taken for truth it is impossible to have the slightest conception of the actual cost of production on credit, because it has a debt to pay for all it produces. Borrowed money pays for the larger part of all production of the relative necessities, and money not borrowed pays for the remainder. It is utterly impossible for them to be bartered, therefore, instead of sold, for if bartered how is the producer and seller to reimburse himself for the money expended? If he produces for money he must sell for money. But are not relative necessities shipped West, absolute necessities East, and both, in the shape of wheat, Indian corn, provisions, cotton, etc., shipped abroad and exchanged for each other without the use of money, by the instrumentality of checks, drafts, and bills alone? Nothing of the kind, as before shown. Money alone pays for labor and materials, and money alone pays checks, drafts, and bills. Goods shipped abroad to sell do not need money to accompany them in order to export and sell them abroad; nor do the goods shipped thence in exchange require money to accompany them to this side. The money is paid where the goods are sent, sooner or later. If gold and silver were in use only, the process would be the same; and even if the checks, drafts, and bills of solvent merchants drawn in suitable sums, were in use altogether,

without gold or silver, the former would be money quite as much as the latter is or can be, and would take the place of it for all purposes of exchange, become the unit of value, purchase, and payment, and a substitute for one commodity or merchandise, in all exchanges. Barter is out of the question in civilization. To make "protection" avail, then, steady prices are of more importance than bounty, to insure against loss, and regulation of loans of more importance than command of markets in order to secure against overstock. The only regulation of this kind possible, as I have shown in other chapters, is a regulation of those loans which are made to the producers on credit of the relative necessities of life. This regulation must be effected through deposit and discount, otherwise called commercial banks. Tariffs, taxes, and continual improvements of machinery have much to do with the result as post-auxiliary causes; the chief immediate cause of loss lies in possible, converted into actual production of relative overstock, whereby the exchanges are blocked; followed by high rates of interest, and improvident loans of all sorts; high rents and high taxes, assessed largely upon imaginary values. These results do not depend directly upon the exchanges made through import and export. Exchanges of this kind, instead of producing a crisis, are a part of the means of avoiding or curing it. Could the imports have been, and had they been, all produced at home as well as the exports, the surplus of the latter requiring to be exchanged would have been exchanged for the same articles produced at home, and the overstock would have been substantially the same as it has been. International trade is essential to civilization, and the world will become more and more civilized as the whole commercial world comes to be regarded as one country. The question of all questions for every country, and particularly for the United States, is to distribute its productive population in such parts of the field, that after all home consumption prior to all exchange, after all national exchanges following that consumption, and after all international, following national exchanges, have taken place, the smallest possible

relative surplus will be left in any one quarter, over and above what may be found in any other quarter. Harmony of production, steadiness of prices, steadiness of interest, and (exclusive of war) steadiness of taxation, the utmost equality possible in the distribution of wealth, the utmost possible production as a whole and upon the average, and the utmost possible contentment and satisfaction, will be the result of following this course.

But all this complex result follows only from the proper distribution of productive population. The science of Production and Exchange is utterly useless in its present state of development. There is almost entire ignorance of the sources of evil, and still more, therefore, of a remedy. The science is unavailable unless practical as well as abstract. What force, every reader has a right to ask, can be applied to distribute productive population so as to produce this result? Is there, or can there be, such a force, and if so, is there any conceivable method of applying it so as to produce the result? To a considerable extent there is, undoubtedly, I answer. The disease lies in that part of the social system where lies production of relative necessities, extending to exchange, which is the adjoining and only remaining part of production. If it were possible to have a state of barter and a state of high civilization and energetic production at the same time, and such a state now existed to the absolute exclusion of money in all its forms, there could be no industrial crisis, because productive population would of necessity be properly distributed: they would be properly distributed, because the producer of cloth or of iron could never exchange a yard or a pound of his product for wheat or provisions without actual delivery at the time; and thus there could, by no possibility, be a greater consumption of wheat and provisions by the producer of iron or cloth, than of iron or cloth by the producer of wheat and provisions. The producer of cloth or of iron, and his workmen, could only be fed while and as far as he found a market of actual consumers who could and would pay down for his iron or cloth. He might borrow wheat and provisions to be obtained upon the

order or check of a capitalist, but these loans could never carry production on credit to excess ; they would only be a healthy stimulus to production, as already shown, and could never be the cause of a crisis. To approach as nearly as possible to such a condition, while still paying all labor, and carrying on all exchanges with money, is the objective point to be sought. This attained, human science can do no more : practical skill, caution, and prudence must accomplish the rest. This objective point is approached as nearly as it can be with the use of money, in France, where coined metal, supplemented with a small amount of paper over and above the coin in reserve to redeem it, is used. The objective point is thus approached, not because coined metal is an ordinary commodity, and therefore an exchange of it for wheat, cloth, or iron, is barter, but because the coin, although not governed by the law of ordinary commodities, yet being distributed in France in the absence of banks, only so far as, for the most part, actual exchanges of commodities for consumption take place, can never, by being paid out for labor, largely in excess of those exchanges, cause such accumulations of overstock as we have witnessed in England and the United States. In the United States a large amount of the deposits in savings banks consists of earnings of labor, received for working raw material into overstock not yet paid for, by those actual exchanges of commodities which would exist under such a state of barter as I have described, which do, for the most part, take place in France, and which ought everywhere to take place, in order to secure harmony of production. Money is absolutely necessary to effect the exchanges of civilized men, whether it be of metal or paper, or of units of value, purchase, and payment founded on bank credit, were these, as in point of fact they never have been, used : the whole of the difficulty and the danger which lies in the use of money instead of barter, consists in the fact that as money is not wanted to consume, but only to exchange, it can, through deposit and discount banking, be paid out and repaid for labor and raw material faster than the resulting product of labor and raw material can, through

sales, be exchanged for other products of labor and raw material or capital. This overplus is what I call more particularly production on credit, because the producer stands debtor on banker's and bill-broker's books to the extent of the overplus for a long time and to large amounts. It is equally production on credit whether gold sovereigns as in England, dollars in bank-notes as in the United States, or even dollars in bank credit, were those in use, are paid out for the labor and raw material. There is no barter, nor anything like it, in the case: the whole difficulty lies in the fact that the exchanges are, on the contrary, too far removed from the inexorable conditions of barter. Where pig iron and labor are paid for out of a bank loan, secured by bill or note of the borrower, and possibly still further secured by the first bonds and mortgage of a railroad, and the resulting railroad bars sold to builders, on their note or bill discounted in bank with or without the same collateral security and not yet paid, two things are absolutely certain: 1st, that the bars have been made on credit, by means of a loan, and could not have been made without a loan; 2d, that the bars laid down by the builders on their railroad, and now wearing out, and therefore being rapidly consumed, have never been exchanged for other products of labor, although they have been exchanged for money borrowed out of bank. Whether this money were in gold, or bank-notes actually delivered out of bank, or whether through clearing the actual deliveries were saved, is a puerile, a senseless inquiry.

The important fact in the case is, that the borrowed money, exchanged for the iron, has given rise to no second exchange of the iron for money not borrowed. Until the latter exchange takes place, there will be no exchange of commodities. Where money is not borrowed, and is laid out in purchase of a commodity, the exchange of commodities is completed: where it is expended for labor, a new commodity takes the place of the one the money was last exchanged for, in order to consume it: where money in bank is borrowed and expended for labor, and the product will not sell, the exchanges of commodities are so far blocked.

The mischief lies not in the fact that there is any overstock whatever, but such an excess of overstock through excessive loans as to bring on a crisis. Any other conclusion would be illogical. It would be equally illogical to affirm or to suppose that the deposits in savings banks are one of the primary causes of overstock: they are a post-auxiliary, not a primary cause. If there were no deposit and discount banks there might still be savings banks: the savings and therefore the deposits would not be as large as now, because a part of the depositors would devote their savings, in the shape of capital, to the production of the absolute necessities of life, by investing in productive land. We have too little of this production for all the laborers in Europe and the United States who are laboring or asking for labor in cities and large towns and villages. But cannot foreign markets be obtained for the overstock in the future without the necessity of such changes in the field of labor? Are not our improved machinery, cheaper material, and cheaper absolute necessities, sufficient to insure us such markets? Undoubtedly, if we can only keep prices, and, therefore, cost of production, steady. We must bring down the cost of absolute necessities by greater production, and by enabling many of those who are now fed to feed themselves. We shall thus remove the difficulty in the exchanges by taking away a part of those who are producing the overstock, and setting them at work producing, where there can be no overstock. With some changes in taxation direct and indirect, there will be no difficulty in disposing of all surplus we may produce. Steady rates of interest, steady rates of taxation, and steady rents will follow, because they necessarily follow from steadiness of production, while steadiness of production follows from steadiness of prices, and the latter from steadiness of loans. The difficulty with writers upon this science of Production and Exchange, usually called Political Economy, is, that they have not gone back to primary causes: they have called secondary, primary causes, and have been thus led to form imperfect theories, instead of establishing a science. But the subject is very complex, and therefore these mistakes are not to be won-

dered at. In all the theories there is undoubtedly more or less truth, and the grand complex truth can, though imperfectly, be found by taking all the theories, eliminating the errors, and combining all into one. Because a glut or overstock of relative necessities had been known to exist, it was false reasoning to assert as an inference that there could be an overstock of necessities of all kinds, and that those who were able ought, therefore, to consume as much as possible in order to support industry. On the other hand, M. Say's argument, that there can be no overproduction anywhere, is, in the abstract, a correct inference from his premises, that there can be no general overproduction.

The premises are sound and the inference *apparently* true. I say *apparently*, for if production, as a whole, is never in excess, how, it may be asked, can it be in any of its parts; and why in one part rather than another? The fault in the premises lies not in the fact that they are not true, but in the fact that they do not contain the whole truth; and they do not contain the whole truth because they are the *simple* result on the average of a very *complex* cause. That cause is, that although in spite of Malthus' theory, which contains a great deal of truth, there is still abundance of what may be easily made productive land, and land already productive may be made more so in some quarters, yet the absolute necessities of life are for the most part annually consumed, and consumption may therefore be said to follow close upon the heels of production; while the relative necessities, without which there can be no civilization, can, by the very complex causes heretofore pointed out, be produced in relative excess, leaving a large annual surplus which cannot be exchanged. All this leads to a crisis of production, and so to a rectification of the excess. That there can be no general overproduction is therefore true, but it is true only as the consequence or result of the fact that the absolute necessities are not and cannot be overproduced. If they could be and were overproduced like the other necessities, the surplus of the one would, as I have in another place shown, balance the surplus of the other.

Again, bank credit is said to circulate as an original substitute for money. Here, again, we have an effect which becomes a secondary cause, taken as a primary cause, whereas bank credit never circulates as such. What circulates all the time is money, through deposit and redeposit, and the additional circulation over and above that caused by depositors is what banks have to sell, in consequence of the credit they have with their depositors. Bank debt, sometimes called bank credit, *results* from this additional circulation. All this error comes from want of rigorous analysis, and many more instances of false reasoning could be given. The science of Production and Exchange being thus imperfect, that of Interest, Rent and Taxes, which are branches of it, cannot well be other than imperfect. In the course of this work I have, in the demonstrations offered in different chapters, shown how the several propositions proved result from more general propositions still, before established. The science of production and exchange is, while eminently practical, also eminently abstract, if we trace all the last effects back to their secondary causes, and these back to their primary causes, the latter of which are comparatively small in number, because complexity grows with development. This course has produced the appearance of repetition, the primary causes being over and over again pointed out, as from different angles of observation the various complex results have been traced back to the same primary causes. The leading active cause of all is money of some kind as a universal equivalent for one commodity in all exchanges; and the reason why metallic money, if left to its natural circulation, gives steadier prices than paper money, issued by banks of issue without the functions of deposit and discount, and why banks like the English banks of deposit and discount, using gold for the most part, give a less steady circulation, even of gold, than banks of issue give of notes and gold, is the most important corollary of all. It is a popular opinion, embraced by some writers, that small notes raise prices more than larger can. If such were the case they would affect interest, rent, and taxes; but there is no valid foundation for such an opinion,

and I have heretofore shown that a duly proportioned reserve is the one thing necessary: the size of the reserve and not of the notes is essential. There is another opinion, which most writers have adopted, that the trade between two foreign countries is substantially barter. Barter cannot possibly exist unless two commodities are directly exchanged, the one for the other. There may be some delay in one of the deliveries, but it is made at last. The actual trade between New York and Liverpool or London resembles barter only so far that comparatively small amounts of money require to be sent either way. There is no real barter in the case, nor anything like barter, except that as barter requires two commodities to be exchanged for each other, so the trade between any of the points referred to, and indeed all real trade whatever, is a series of exchanges of commodities made by the use of money, first or last, and two exchanges are required instead of one where money is used. If there were really no trade but barter, there could be no commercial crisis, and if the first exchange of a commodity for money were always sure to give rise to a second exchange for money on behalf of actual consumers, there could be no such crisis. When manufacturer A. produces, by means of a bank loan, ten thousand yards of cloth, and sells it to merchant B., who buys with the proceeds of a bank loan, and sells afterward the same goods to merchant D., who pays in like manner, D.'s loan pays B.'s, and B.'s pays A.'s, but there has been no barter. The misfortune is, that such sales do not take the place of barter. There are three exchanges here, and but one commodity appears. The real mischief lies not in the fact that some such sales are made, but in such an excess of them, as we have witnessed in the United States. Equality of taxation and steady rates of interest and rent are impossible under such circumstances. As comparatively little farming land is under rent in the United States, while a considerable portion is under mortgage, both rent, interest, and taxes being payable out of the same fund, the amount of money seeking such loans being more or less dependent upon the demand on the part of manufacturer A. and

merchants B. and C., rents, interest, taxes, and net profits of a large amount of farming land are more or less affected by the state of the demand for bank loans: the net product of the producers of the absolute is thus more or less dependent on the quantities of relative necessities being produced. If the production of these is in the rising scale, the rate of interest is higher; if the contrary, lower. But on the whole the rate of interest on farm mortgages is comparatively steady.

CHAPTER X.

CAPITAL, LABOR, AND WAGES.

CAPITAL is the material on or out of which labor evolves a product, with the aid of tools, machinery, and natural elements or forces. It is either fixed or quick. Fixed capital embraces land, its appurtenances and fixtures; it may appropriately enough include also the tools of trade which remain after the product is consumed, and are used until worn out to manufacture similar products. Quick capital embraces all other things to which the term Property attaches, excepting those products which are being consumed, or have been actually purchased for consumption. This is the definition of the term Capital, as used in this chapter, and the same definition I have given elsewhere, except that fixed capital in its most abstract sense is land only. Labor is either mental or physical force, applied directly or indirectly, personally or representatively, to effect and bring to pass certain results, which do or do not leave a tangible and material form. If they do, the resulting product can be exchanged directly for another, or indirectly through the universal medium of a unit, whose value is the result of carrying out a convention (either implied or expressed, local, national, or international) to use it in place of one of the commodities in all exchanges. This medium is called money, and consists of units of metal or some other commodity; or units of paper promises actually convertible into the units first mentioned; units of the same kind not so convertible, except that while not convertible into metal they possess extrinsic value by virtue of their currency; or of units of money in the character of units of debt and credit, receivable and current in like manner. In order to be money, however, the article or thing used as

money must be receivable in exchange for commodities, labor, and capital, and, so long as it is money, used for no other purpose. Wages are the compensation paid for the labor before mentioned by the owner of capital. Wages are, therefore, that part of capital paid by the capitalist and producer to the laborer who applies mental or physical force to bring to pass the results before mentioned, which the capitalist and producer gives the laborer in exchange for his labor, and which is agreed upon and fixed as the laborer's share. Being agreed upon and fixed, the laborer runs no risk of a market for the product; that risk is taken by the capitalist. The only risk run by the laborer is as to the manner of doing his work, and this risk is for all practical purposes a very limited one. Hence it ought to follow, and as a matter of fact it does follow, that the laborer, running no risk of a market, being thus guaranteed a support, and running no risk of bankruptcy through inability to sell the product of his labor, receives as his share of the enlarged or increased capital which his labor brings into existence a smaller proportion relatively than the successful capitalist and producer on the whole, but a larger share in proportion than the unsuccessful one. Men who perform arduous and responsible labor, as clergymen, clerks and cashiers in banks, conductors, engineers and other employees on railroads, receive what seems sometimes relatively very small compensation; but it is paid to them, and they and their families are supported, whether those who employ them lose or gain. Again, in a savage and primitive state there is no capital to be used in the employment of labor, and if, in a state of high civilization, capital were by any means to be equally divided between laborers and capitalists by mutual agreement, and could be kept so divided, there could be no progress and no employment of labor to any extent. Inequality, therefore, is absolutely essential to the employment of labor. Inequality being thus absolutely essential to the employment of labor, while the wages of labor by the increase of population and the resulting increase of competition have a tendency to become lower, capital by a proportionate increase suffers a like competition, and is

driven to take more risk therefore, or proportionately less compensation. This increases the energy of production, and by increasing it gives additional employment to labor. The increasing competition of labor in old communities is, therefore, balanced by the increasing competition of capital. Moreover, the tendency to large accumulations of capital in single hands, has no directly injurious effects upon labor, because the same number of laborers is employed, the same competition of capital exists, and the same wages are paid, as would be paid were the accumulations not so large. Whether Vanderbilt owns a majority of stock in the New York Central and Hudson River railroads, or not, in either case the same number of hands must be employed. Labor, then, has no direct cause of quarrel with capital accumulated to what seems excess in single hands. It is the minor who has a case against the major capitalist, if any case there be. That case I have fully examined in other chapters, and the most active cause at work to increase the natural tendency to inequalities of this kind is excessive production on credit. Of all the causes at work, in recent and present times, to sink and destroy the capital of small and moderate capitalists, and build up other capital and capitalists on their ruins, and to distribute capital in few hands, railroad extension has been the most potent; while at the same time the capital sunk has been largely expended in feeding and clothing labor, and giving it a surplus to put in savings banks. The only complaint which labor can make against capital is, that by employing labor to excess in this field of production it has wrecked itself, and put labor out of employment as the result of that excess; long time being required to find other fields, and "hard times" meanwhile being the result for some laborers. A vast amount of the capital of small capitalists and some large capitalists was sunk in the Northern Pacific and other railroads not long since. The capital of the small capitalists went into the pockets of laborers, and fed and clothed them for a long time, and their loss and that of the larger capitalists is largely counterbalanced by the gain of land-owners. The capitalists whose capital built the

roads are the real losers, then, because they have lost a great part of their capital, while labor has lost only the chance of further employment in that field, and is being gradually forced into other fields.

The chief compensation following loss, therefore, in these cases for capital, is the new capital of increased value of land. Had the land acquired half its present value before the roads were built, the building of the roads would have given the lands the remaining half, and the roads themselves a large additional value beside. But to say that there is any cause of complaint whatever, for either labor or capital, is only a figurative expression. There is no real cause of complaint whatever for either. Both were impelled by forces of whose nature they were ignorant, and for the result of which they were no more responsible than for that of a stroke of lightning.

But while labor can never be blamable for the losses of capital, although it demands and receives a fixed share of it before it has demonstrated by sales of its product that it has earned anything, and capital can never be blamable for labor's want of employment, because capital would surely employ labor as long as it could do so with profit, labor has serious *apparent* cause of complaint against capital, in being called to labor at nominally high wages to help capital produce an excess of relative necessities, and as soon as a commercial and banking crisis comes, in being forced to suffer the severities of an industrial crisis. Like a man who, jostled in a crowd, turns upon his next neighbor as the cause, when the latter is only an instrument of the jostling crowd behind him, labor turns upon his next neighbor capital, in the jostling of an industrial crisis. The cause against capital on the part of labor has no more foundation than this. Both capital and labor have been called to the same place in the field of production by the same controlling motive,—the appearance of a profitable investment of their means. Manufacturers will continue to manufacture as long as they can sell to merchants at a profit, and most merchants, being thus deceived, will continue to buy as long as they are able

to buy, provided they also continue to sell at a profit, while laborers will continue to work as long as wages are rising, and more laborers still will be allured by the same cause to the same part of the field, until the inevitable crisis arrives. Are those who thus act (and they constitute nearly all producers, whether they be manufacturers or merchants, and nearly all laborers) to be blamed? Have they any just cause to blame each other? Surely not; everything sells at a profit to the producer, and he is forced by all the influences which can move him to produce more; an uncommonly shrewd producer might, and some producers do undoubtedly pause, but they are compelled for the most part to continue producing or retire, while laborers see no reason whatever for not going where apparently increasing profits of capital and consequently increasing demand for laborers seem to call them. On the other hand, all the science hitherto attained and assented to says that production can go on in all directions indefinitely, without any general glut of products, and it says no more, — this being only a repetition of what M. J. B. Say declared early in the century. But while this proposition is true, it is a mere truism, productive of no fruit whatever, and of no practical use. On the contrary, it has been highly detrimental so far as science, or what is supposed to be science, has its effect on practical life.

But is this state of things natural? While undoubtedly there can be no general overproduction, is it not certain at this time in the nineteenth century that railroads, although raising the value of land by a sum as high as their cost, or very nearly, do not pay an average return for the capital invested by an immense difference? Is it not certain that merchants fail from "shrinkage in values," and inability to sell through overstock, and from the same causes operating upon those to whom they have sold on credit? Yes, undoubtedly; such is unquestionably the case; and it is undoubtedly true that it arises from credit of some kind, while it is certain it does not arise from credit of an ordinary kind, as I have before amply shown. An industrial crisis is a real and not an imaginary affair, and it arises not from moral

causes ; not from any deliberate design, any kindness or unkindness, good motives or evil motives, on the part of either producers or laborers. To repeat such unmeaning nothings is a useless business, if we desire to reach the true science of the case. It arises, undoubtedly, in a highly artificial state of credit. All this is, however, mere language without definite meaning, unless followed by a rigorous analysis of the credit used. It comes not from ordinary personal credit between man and man ; the credit must be of an artificial character, and it can only arise from bank loans, because ordinary loans are not in excess of commodities sold, in the absence of banks. The cause of that kind of overproduction which leads to an industrial crisis must therefore lie in bank loans.

But wages are paid out of capital before the products of labor are sold ; and if capital is borrowed in the shape of money through bank loans, wages are paid out of that money. As money has been shown to be substitute capital, as well as substitute commodity, utterly useless for any purpose but to exchange capital, commodities, and labor, and hence having no producing element in itself, the question is : Can money be put in circulation, or, in other words, exchanged a second or third time, for labor to produce the same kind of commodity, before any sales of the commodity take place, without increasing so far the circulation of all money, as compared with, or set off against, all commodities actually sold and consumed (the commodities produced by the laborers being thus far entirely out of the market), and without diminishing at the same time the total of all commodities obtained with their wages, and consumed meantime by the laborers to an extent below what could have been the case had they not been paid their wages on credit to produce on credit what has not been sold ?

The sole original use of money being to exchange commodities and capital for each other, or for labor, to produce a commodity which can be exchanged with a profit for the money back again ; to pay out fifty dollars a second or third time for labor to produce a ton of iron, when a ton of iron produced by labor in exchange for the same fifty dollars the

first time, or even the second time, remains on hand unsold, is to circulate the money on credit, in excess of its natural and ordinary circulation or exchange, as a substitute commodity, because the substitute appears for a long period four times or six times as often as its principal instead of only twice. It is also to produce on credit, and in excess of the production and consumption of other commodities, except so far as their production may be in like predicament; and the more this is the case the greater and more extensive is production on credit. This kind of circulation and this kind of production are thus, by rigorous analysis, clearly shown to be precisely equivalent in character and in ultimate although not immediate effect to loans made by bankers to producers in the shape of necessities to be paid to laborers and producers of raw material before the product appears. Such loans in produce could not be very extensive; and if they were half as extensive as those made now with the money of depositors, the necessities consumed would rise, and the articles overproduced would fall, and stop all further loans until the products were mostly sold. Gold and silver money, whether in the shape of units coined by government, units coined by individuals, units of weight weighed by buyer and seller at each sale, or units of metal of any kind, whose accumulations are so large that the annual product, compared with total past accumulations, gives a ratio not much in excess of the annual increase of commerce as compared with the commerce of preceding years, cannot, so long as it remains distributed throughout the commercial world as commerce left it, be put in circulation by its owner, or by a borrower from him, more than twice, or occasionally, and for very short periods only, four times as often as its principal, in particular instances. On the average, it cannot be put in circulation three times, or even twice and a half as often. Manufacturer A. borrows of capitalist B. in France, 10,000*fr.*, makes 20,000 yards of cotton cloth, and sells it to merchant C., who borrows the money of capitalist D., and 500*fr.* besides, to pay for the goods as well as A.'s profits, who then pays his loan to capitalist B., while manufacturer

A. makes 21,000 yards more of like cloth before merchant C. has sold any of the first cloth. But manufacturer A. can never expend on labor and material all the money he has borrowed in making cotton cloth, and then without selling that cloth pay up the money he borrowed to make it from capitalist B., without borrowing from capitalist D., E., or C., and diminishing by the precise amount thus borrowed of D., E., or C., the total of money on hand everywhere to loan. In other words, his overstock represents precisely so much money taken out of the loan market from B., and from D., E., or C., to a franc; and when he sells and as he sells, will, precisely to a franc, so much money be carried back to the loan market by payment of A.'s loan to B. and D., E., or C.; and the power of loaning is so far restored. The exact amount taken out of the loan market is thus carried back to the loan market, and the total circulation of money is not increased by all the transactions taken together. The power of loaning is limited and measured by actual sales for consumption. To a very slight extent, and for a very short time, manufacturer A. has, by borrowing from capitalist D., E., or C., enabled his laborers to exchange their money wages for necessities twice before the product of their labor is sold, and the manufacturer has caused his first 10,000*f.* to make four exchanges — twice in payment to his laborers, and twice by payment of their wages for necessities — before selling any of his product; but his progress is soon stopped, because in a short time his note or bill to the first capitalist, B., must be paid. Expansion of money circulation, to any great extent, that is to say, of the use of the conventional commodity money, in place of the real commodity cotton cloth, beyond the actual circulation of commodities — in other words, actual sales for consumption — is thus for all practical purposes impossible, and cannot be carried any farther than loans or advances of capitalists in the shape of wheat, provisions, vegetables, shelter, and coarse clothing could be made to manufacturers and other producers, if barter could be and were in general use in highly productive communities like those of France, England, and the United States. Gold,

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silver, or other metallic money, freely coined by governments, without seignorage, or for only a small seignorage, sufficient to pay expenses, gives therefore very nearly or quite as stable an equilibrium of exchanges, and therefore of production and labor, and consequently of wages, as barter could do under any circumstances. With such a currency as well as with barter, there can be comparatively little production on credit at any one time, although all the money capital in the country, as fast as it comes to hand for loan, and which consists of gold and silver actually in the hands of capitalists A., D., E., F., etc., can be safely used to stimulate and promote production. The manufacturer runs comparatively little risk as a producer, and such must therefore be the case with the merchant who is the next producer in order.

The wages of labor paid by the manufacturer out of his own money, or out of the money he borrows from the capitalist, although paid in advance, are soon reimbursed, because they are paid out of the cash proceeds of labor's products actually sold for consumption, and are immediately handed over to him who advanced them.

This is an exact and rigorous analysis of the actual facts which make metallic units freely coined and distributed and not placed in banks the safest possible currency. It is because they cannot be used to force production on the whole much faster than they are used to cause consumption; because production on credit is kept in check by them, and *therefore* prices and wages are steady; and not because they are, as falsely alleged, ordinary commodities, that they are the safest and soundest currency in the world.

The wages-fund, with the use of such money and such loans, consists of money actually received on sales of labor's product, and money borrowed but soon repaid. All the money which constitutes the wages-fund, therefore, arises from sales of commodities which have actually taken place or will soon take place. The capital which sustains the fund is the total capital of all sorts belonging to the manufacturer or other producer, *plus* the average money capital loaned

from the capitalist, in the shape of metallic and paper units which have just been exchanged for commodities to be consumed, and therefore entitle the capitalist to exchange them himself, or allow others to exchange them for like commodities, or for labor and material to produce like commodities, in place of those whose consumption caused the money thus loaned to be paid to the capitalist. The advantage possessed by labor under this system is not that gold and silver are any better in and of themselves than bank-notes, not that it runs less risk of being paid wages as long as it works, — for labor is always paid, — but in the steadiness of nominal wages, steadiness of actual wages, and security of continuous employment. It is hard to eradicate the idea that all this comes from being paid only in gold and silver because the metal is an end in itself, and not in small bank-notes, or paper money of any kind; but I will now proceed to utterly disprove the soundness of this idea, by showing how wages are paid in gold and silver altogether, or bank-notes altogether, under a fully developed system of production on credit. Whether gold and silver, or bank-notes, pay the wages is immaterial, because production can be carried on upon credit, and wages can be borrowed, as easily through gold and silver as paper.

THE CREDIT WAGES-FUND.

Mr. Mill writes of a Wages-Fund, particularly devoted to the payment of wages, and set apart as it were for that purpose. In one sense this is true. Wages are the income of labor, and most producers (which laborers are in a general sense) spend all but a small fraction of their income. Wages are then the guarantied income of labor for its share of the gross profits of production. Wages differ from income, however, in the fact that they are a large item of those gross profits which have to be deducted before net profits are ascertained; and if gross profits are insufficient, wages must be paid out of capital. In other words, capital advances the wages, and is paid out of gross profits, after waste and deterioration of plant are made good. If nothing then re-

mains, there is no profit. If the remainder is large and increasing, more labor and, therefore, increasing wages result; but this tendency is counteracted, more or less, by the competition between laborers. If the remainder is small and decreasing, decreasing wages result. But equilibrium can be maintained by what may be called the natural as distinguished from what may be called the artificial or bank circulation of money, as before described. The wages-fund, then, is for all *practical* purposes a guaranteed portion of gross profits paid in advance; for when wages have to be paid indirectly out of that part of capital called "plant," because gross profits do not leave sufficient after paying labor to pay for waste and deterioration, production, and, therefore, wages soon stop, unless production can be carried on upon credit in such a manner by loans as to give all the overstock in the hands of the producer, and of those to whom he has sold for cash obtained by bank loan, the *appearance* of a total of gross profits, sufficient to leave, after the usual deductions, an apparent amount of net profits. If this can be done, wages paid under these conditions are reimbursed, not out of gross profits but really out of subsequent loans, and waste and deterioration are made good in the same way, and, in the winding up, loans are paid out of the real gross profits in the shape of overstock and debts due on credit sales of overstock, falling back on fixed capital in the shape of plant for any deficiency. This is the credit wages-fund, and it is supplied by bank and other loans. I say other loans, because after deposit and discount banks are established, all other loans, including those of individuals and savings banks, are auxiliary to bank loans in producing the grand result. If bank A. loans to manufacturer B. ten thousand pounds in gold sovereigns and silver change, to pay laborers to make five hundred thousand yards of cotton cloth, and manufacturer B. sells the same to merchant C., who pays the ten thousand pounds with profits to B. for the cloth, out of money actually received for goods which have gone into consumption, the new goods in the shape of five hundred thousand yards of cotton cloth were wanted, and their sale to C. enables

B. to pay his bank loan. No more goods were produced than were warranted by actual consumption. But if merchant C. borrows the ten thousand sovereigns and enough more to cover B.'s profits, from a bank, though it should put in circulation nothing but gold and silver, manufacturer B. has merely procured C. to take the goods and at the same time assume his place in bank, by putting his note or bill there for discount, and with the proceeds enabling B. to pay the bank. This last case is exactly the case before mentioned, where manufacturer A. in France borrowed of capitalist B. ten thousand francs to make cotton cloth, and before selling it borrowed of capitalist C. a like amount to make as much more cloth, without selling the first cloth, because manufacturer B. now borrows in bank the sum of ten thousand sovereigns, and makes as much more cloth, before merchant C., to whom he sold the first cloth, has sold a single yard for consumption. The cases look alike, and in both the merchant and the manufacturer hold each one half of all the goods. In both cases all the goods remain unsold to consumers, and the difference is only nominal. Wherein, then, lies the real difference between the two cases? The same amount of goods was produced on credit in each case, the same amount remains unsold in each case, and in each case gold and silver money were alone used. The two cases look much alike to ordinary observers, but they are cases clearly put for close and careful examination, to enable the reader with all the force of demonstration itself to perceive the difference between producing on credit by loan of gold and silver without any banks of deposit and discount existing, and producing on credit by loan where such banks exist.

In the case in France, manufacturer A. could not borrow the second time, while his goods, produced by means of a loan the first time, remained unsold, without reducing to the precise extent of that second loan all the money on hand to loan, because the power to loan of capitalist D., from whom he borrowed, was reduced to a franc exactly by that loan; but in the other case, the power to loan on the part of all

the banks was not reduced by the amount of the loan made, because they continue to loan up to a crisis. The same bank could loan the same amount next day by means of a deposit from depositor G., who notwithstanding the deposit can and does produce himself and pay labor, or make loans to other producers for that purpose precisely as if he had never made any deposit at all; and beside all this, the banks can expand loans according to demand. All bank loans above average, therefore, — which average represents the only “real economy of metal,” — are loans made to producers on credit, in excess of all loans which ought to be made. But a state of average loans is a state of average reserve. Hence we come by another kind of analysis to what has been repeatedly demonstrated directly or by synthesis, as well as by analysis, that to make production, consumption, and prices steady; to give labor steady employment with steady wages in that part of the field of production to which it has been invited; to make less iron and cloth and fewer railroads on credit; to invite fewer laborers to large cities and towns to work on municipal improvements with borrowed money at enormous wages; to carry back to agriculture the surplus population of large cities and towns, — as far as it is possible to effect these objects by the regulation of the “circulating medium,” — a fixed ratio of coined metal to deposit and discount-bank debt must be maintained, otherwise there is comparatively small advantage in a reserve. If the Bank of Amsterdam could have maintained its total of credits at the same volume, without coin on deposit for every unit of credit standing on its books, the result would have been equally beneficial; and why? For the reason repeatedly given already, that not a single unit of that credit could be paid out for labor or commodity which was not, when last before paid out, paid for commodities actually going into consumption. Apply the same test to our deposit and discount banks. These banks loan the money of their customers, and the sum total of their loans is the total of deposits *minus* total bank reserve. This total of loans, therefore, is so much in

excess of all the loans for producing and commercial, or, in one word, producing purposes, which could have been made in the absence of banks, subject to a discount of one item which is a matter, not like bank loans presenting exact figures, but a quantity to be estimated. This item consists of the credit balances standing to the credit of merchants on bank books and resulting from loans in bank, which the borrowing merchants have not yet drawn upon. These balances have had no influence upon production, because never used. Subject to this deduction, and an allowance for loans made accidentally or otherwise to non-producers, bank loans in England as well as in the United States show with mathematical certainty in the footings of bank books the respective national totals of production on credit, in excess of the production which would suffice to fill the void caused by all the consumption which has taken place while the excess was being created. This expansion of production in excess of consumption answers precisely to what I have in another chapter called expansion of circulation in excess of a corresponding contraction. It is using the substitute commodity money, not merely to exchange all the commodities which consumers are ready to take and do take, and also to pay labor for producing as fast as consumers create a void to be filled, but to an excess, measured precisely by the sum total of bank loans and a portion of savings bank loans, subject to the foregoing deductions. The sum total of loans which would suffice to fill this void, and keep it filled but not overflowing, consists of all loans made for this purpose by those who are neither depositors nor stockholders in banks, and which would be made by those who are either depositors or stockholders, in the absence of banks. Hence it follows that the vast sums paid as wages out of bank loans are borrowed by the producers, whether they be manufacturers, merchants, railroad builders or contractors, contractors for municipal improvements, city houses, and warehouses, etc., etc., on the guaranty of bankers, who borrow of their depositors on the pledge of bank capital the use of their money to give it an additional circulation over and above what they

give it themselves, to pay the laborers while producing this excess and thus enabling them to maintain themselves, and reserve large savings out of labor meanwhile, which largely appear in savings banks together with loans made by individuals out of profits on goods sold, but not to consumers. These savings, deposited by labor in savings banks and by the latter in deposit and discount banks, are largely loaned to producers again by savings banks, and thus increase by their total the excess of production on credit before mentioned. This increase is equal to the total of savings bank loans devoted to the purpose named, and appears only on savings bank books. The total of bank loans subject to the two deductions before mentioned, and the total of savings bank loans used in the manner stated, together with loans out of profits before mentioned, cause production in excess of consumption to take place until stopped by a commercial and industrial crisis. All the raw material, and all the labor used to create this excess of production, will be found embodied in these totals. Hence it follows that all the wages of labor employed by capital in producing the raw material, and all the profits of the capital itself, have been furnished by borrowing indirectly the necessities consumed on the part of the producers and laborers, guarantied by bankers. If this be true, the failure of the producers must be the loss of depositors. But this is not the case usually, and never can be the case as long as bank capital is sufficient to pay the losses. Hence, by a *reductio ad absurdum*, the proposition that depositors have furnished wages and profits is found to be false, because it is only upon the contingency of exhaustion of bank capital that depositors lose. But borrowing producers owe banks to the extent of the excess of production over consumption, and bankers owe depositors a like amount in excess of the reserve they have on hand to pay with. Hence it follows that what banks loan to all customers, whether they are producers as well as consumers, or consumers only, is that extra and additional circulation or use of money as a conventional commodity, and at the same time unit of valuation, purchase, and payment, which is in excess of all the

circulation or use of the money the depositors make for themselves either in purchases or loans; and hence in excess of all consumption that has taken place, because in excess of all the exchanges of commodities for that purpose. The result of it all as shown by analysis is, that money being a conventional commodity, its natural and legitimate use is to exchange all real commodities wanted by producing consumers, and to supply through wages and loans the void created by consumption. If it is used, as it may be, out of a large consolidated reserve, composed of a series of individual reserves, by bankers in the way of loans to producers, these borrow for themselves and their laborers, and the laborers and capitalists who have produced the raw material, the necessities they have consumed; and their capital stands pledged to pay back the same in the shape of money received for their products actually consumed. They borrow money to circulate in excess of consumption, and yet can only refund it in exact proportion to consumption. The surplus of money over and above the consumption of the producers and laborers who have produced the raw material, and of the laborers who have worked it up into its present state, appears in the shape of money, which from the hands of the last class of laborers may go into savings banks to stimulate still further the production of the excess already on hand, and from the hands of the producers of raw material may go to increase the capital devoted to the production of raw material.

Here lies open before us the true grievance of labor. There is no real capital behind the money thus loaned by banks in excess of consumption. Hence they loan no real capital. Money can only take the place of its principal; it can do no more without borrowing under its semblance of money commodities, for which it has no commodities to offer in exchange. The wages of labor paid out of bank loans, are borrowed by the producers out of commodities already on hand and to be produced, which consumers will certainly want, and will therefore take; and their capital is pledged first for the payment; the capital of the bankers is pledged

next; and that of depositors last. The real wages-fund in any kind of production, therefore, is that part of the products of his own labor which the laborer will consume himself, and that part which other producers will take in exchange. Beyond this, the laborer can only be paid by borrowing. He, as well as his friend, the capitalist and producer, tread on dangerous ground when the rising scale of bank loans shows a rising scale of production. Without a fixed point in the reserve about midway between the highest and lowest production, above which loans cannot go, production must continue until it and labor suffer a collapse. Capital and labor engaged in such production have no cause of quarrel, but of sympathy. The capitalist may become bankrupt, and the laborer thus set adrift and forced to other parts of the field, but neither is to be blamed. The whole subject is so complex, and intricate because complex, that it is no wonder that neither capitalist nor laborer have the slightest conception of the forces at work beneath them.

With a steady reserve everywhere in all banks, stopping loans at the same point in every bank, comparatively steady production and wages would follow, because paying for labor and raw material on credit would be stopped everywhere at the same stage; and in a period of ten, fifteen, or twenty years, more production, followed by actual sales, would take place than now. The United States have now arrived at that point where the protection they really need is that of a sound currency and steady prices. This would protect producers by the absolute exclusion of articles which they now only partially supply, and carry the amount now paid in tariffs on importations of such articles over to others upon which it would naturally fall.

This is the true remedy and the true protection which would follow a duly regulated reserve. Labor is now bearing in company with capital the losses and suffering resulting from unrestrained production on credit, in excess of consumption; and the common grievance of both is, that the use of money under the system of bank loans is so complex a matter that not only all bankers and merchants, but all

writers, have been deceived as to its true character. Mill and Price say, as the final result of their examinations, that what acts on prices is credit, whatever form it may assume, and that a bank deals in credit; and their opinion is openly followed by most writers in the United States, and seems to be contradicted by none. Until these two erroneous propositions are admitted to be false, and the two propositions which I have demonstrated to be true, and have offered as a substitute for them, are admitted and acted on, the most important object to be gained by a banking reserve — the regulation of production on credit — will be lost. Those two propositions, are, that it is not credit, but production on credit which raises general prices; that a bank does not deal in ordinary credit, nor in fact, to speak with rigorous accuracy, any kind of credit whatever. So long as it keeps a reserve equal to any call made upon it, and continues to do business, it loans to its customers money for circulation, in excess of all circulation that could or would take place were no bank loans ever made; and *therefore* in excess of all commodities actually exchanged — that is to say, sold for consumption. Because the produce of the labor purchased by means of this extra circulation will not sell to consumers, the result is the same in raising prices as if the bank had loaned the money to non-producers, who by consuming constantly without producing anything would be all the time reducing the total of articles actually consumed, and at the same time increasing continually the circulation of money (buying), and thus raising general prices; and in no other way can that indispensable condition of overproduction (rise of general prices) be brought into existence. Ordinary credit, like credit between merchants, arises entirely from a sale of merchandise on time. If no bank discount follows such a sale, and the seller retains the debt arising from the sale, whether it be evidenced by entry, bill, or note, this, like all other sales of a like kind, operates only on the price of the merchandise sold; it does not raise general prices. Hence, inasmuch as bank loans cause overstock which will not sell, if the loans were a matter of ordinary credit, — if

the purchases of necessities made by laborers and producers with the proceeds of the loans were like ordinary purchases on credit, — the effect would be to raise the price of the necessities so bought and consumed *only*, and to lower and depress the prices of the articles in overstock. But the actual fact is, that all prices rise, including articles like those in overstock, so far as these are sold to consumers. Herein lies the exact reason why the phenomenon of a general rise of prices occurs, and makes actual depreciation which exists in the overstock — sure to be demonstrated when it is, as it at some time inevitably will be, forced on the general market of consumers — appear for a long time like actual appreciation. It would be a blessed fact for labor, as well as capital, if banks could be made to deal only in credit like that of merchants, if that credit would pass instead of gold and silver or bank-notes. There would be no need of a reserve, and there could be no overproduction, because all goods like those in overstock would immediately fall in price as fast as the necessities consumed in producing the overstock could rise in price. But the contrary of all this is the case, because there is no bank credit, and no merchant's or other producer's credit circulated or used. The producer borrows the money, either in gold and silver or bank-notes, out of what is called bank reserve, and pays it out for labor and for raw material, which is the product of labor and capital, and it is then largely expended in the purchase of necessities. Although the laborers and producers actually pay gold and silver for all that they consume, and so in common parlance do not owe a cent for what they have thus consumed, in the grand national economy of exchange they have purchased these things on credit, because the product of their labor has not been directly, or by the medium of money, exchanged for these things they consume, and cannot be exchanged for them. It is not because the money paid to them as wages and price of raw material was borrowed, that they have thus purchased on credit, but because they have produced faster than other producers could exchange with them ; it is production on credit in excess of consumption. The actual

facts masked behind bank loans, price of raw material, wages, and purchases of necessities, are then, that sellers of raw material, laborers, and employers produce what will not sell, and are supported while doing so by the credit of the employers. This credit is guarantied by the overstock and reserve capital, and behind these fixed capital in the shape of plant; and behind all these the banker. This guaranty is made good by the pledgers in the order named. No loans of this sort can be made upon the guaranty of productive land devoted to the production of the necessities of life. Loans secured by such capital are paid out of the income of the land, and, failing that, out of the land itself. This makes the lender quasi-owner of a portion of the land until his debt is paid.

THE TRUE REMEDY FOR THE GRIEVANCES OF LABOR.

It follows from the foregoing demonstration with a certainty almost equaling that of mathematical analysis, that as the circulation of commodities takes place to effect the consumption of commodities, and the use of money is but the use of a conventional process through the use of a conventional commodity, not intended for consumption, to circulate indirectly real commodities intended for consumption, and supply the void created by consumption, by paying all labor required for that purpose, the circulation of money for commodities, can be no more rapid than the circulation of commodities for consumption. To talk of an increased rapidity of the circulation of money, therefore, is, if we take away the mask which conceals the process, to talk of an increased rapidity of the circulation of commodities, and therefore an increased rapidity of consumption by the same set of consumers, which is absurd. When Mill and other writers, therefore, and bankers, write or talk of an increased rapidity of the circulation of money as the means of economizing the quantity of money required, they write or talk of what is absurd and impossible. What they really mean is the rapid movement of money into and out of banking reserve, when the current is taking, all the time, a little more money out than it is carrying in. This my analysis has demonstrated

to be an increase in regular progression of the circulation or use of the conventional commodity or units of value, purchase, and payment, in the reserve, called money, in excess of the exchange of commodities for consumption, and the production which is required to fill the void thus created. There is no increase of the rapidity of the circulation requisite to carry on the last named process, which process is, in other words, commerce itself, but there is an extra and additional circulation to pay for labor and raw material created by loans (which writers and bankers have never perceived), the effect of which is to produce in some quarters more than sufficient. This looks like increased rapidity of circulation, sometimes called increased economy of money, but is in fact nothing of the kind. The true remedy for labor then is, not to create an overstock; and to this end not to continue to receive wages for all hands, but to take away a part of its laboring forces from this part of the field. It is equally the duty of employers, when they find they are beginning to be overstocked, to send away a part of their laborers and buy less raw material; but this I have shown to be *morally* impossible in the face of apparently rising prices. But is it possible to overproduce in any quarter upon the average? I have shown that it is not. Taking into consideration excess and its natural sequence defect, there is no overproduction; taking into consideration high prices and low prices, there are neither high nor low but average prices; taking into account high reserve and low reserve, there is average reserve; and looking at excessive expansion of circulation of money beyond the circulation of commodities for consumption, and the lowest degree of expansion, there is moderate expansion.

We do not, because we cannot, produce an excess upon the average. Iron is the great commodity of civilization, cloth is indispensable; and a few years suffice to dispose of an overstock of these. It is not an oversupply of these merely that labor has produced. Labor as well as capital has been urgently invited to remove to large cities and towns, and the former has received enormous wages, paid by the latter with money borrowed at enormous rates, to "improve"

towns and cities away from the country naturally tributary to them, while the latter has been invited to lay out its means on houses and warehouses, which embody an excess of production immeasurably more wasteful and unprofitable than the excess embodied in iron or cloth. The problem for labor then is, not to work less on the average, but to work as much or even more on the average, by never working to excess at any time, and therefore too little, at another time. This, I have already shown, can come only from producing just as fast, or at least but little faster, than producing consumers are willing, simply because they have the power to exchange for and consume; and this kind of producing, while money is absolutely essential as a substitute commodity, — in the shape of coin altogether, without banks; coin with banks of discount and deposit; coin with banks of issue only, as in Adam Smith's time; or coin with banks of issue discount and deposit, as in England and the United States, at this time, — can be maintained only by stopping the circulation or use of this substitute beyond the point already designated. A metallic circulation without banks prevents, as with a metallic barrier, the use of the substitute commodity in excess of the real commodity, and maintains in the hands of all money holders including capitalists, who lend, an even average reserve. Banks with a metallic reserve, kept at an even ratio to liabilities, could not allow production to progress far beyond this point, because there would be a fixed point, furnished by this fixed ratio, beyond which loans could not go. An ordinary banking reserve not thus fixed progressively diminishes when production is advancing beyond consumption, because the money in it obtains through loans a progressively increasing circulation in excess of the actual exchanges going on between producing consumers, and progressively increases when production progressively diminishes below those exchanges. When production diminishes, and the overstock is being reduced, banking reserve necessarily and unavoidably increases progressively as the overstock diminishes.

The question of tariff is important to labor, but vastly

less important than a duly regulated currency, because with such a currency tariffs will fall practically for the most part upon articles best able to yield revenue. A regulated currency in the United States will never come until those extremely complex elements which I have pointed out by analysis are fully comprehended and acted on. The reason why France has so sound a currency is because she uses mostly metallic money and a few sound bank-notes, without banks of discount and deposit. Such a currency takes care of itself, and requires no wit of man to regulate it. Its circulation is not in excess of the circulation of commodities and the production necessary to fill the void created by consumption. Hence its productive powers are well balanced, and there is no waste of energy and force. In like manner, a metallic currency supplemented by twenty-five or even fifty per cent. of convertible government notes as well as a currency of bank-notes, like that in Adam Smith's time, without banks of deposit and discount, would give a safe and sound currency, because the notes, in the first case, take the place of so much metal; and in the second, the banking reserve for redemption of notes maintains an average for short periods. The real meaning of the latter expression is, that with slight variations, production is maintained at its proper average. But banks of discount and deposit cause an entirely artificial and additional circulation of money, as already shown. The reserve will not maintain itself at average within short, but only within long, periods; and those periods are the ascending scale of loans which lead to a crisis, and the descending scale which leads from it. The wit of man is therefore requisite to discover the cause and furnish a remedy. An artificial maintenance of reserve, as already shown, is the remedy. In this remedy labor has as great an interest as capital. Unfortunately, Great Britain, with whom is our principal trade, has the same banking system as ours in substance; the difference is but nominal. The Bank of England suspends, apparently, in order to loan the public more bank-notes than it otherwise could do but never is

called upon to do : the banks in the United States suspend, apparently, to do the same thing substantially, and from inability to meet calls for metal ; convertibility of the bank-notes is the only difference remaining afterwards on the British side. This difference is merely nominal, because contraction results in both cases. In either country no expansion of note circulation, and no expansion of loans after a crisis, takes place, but quite the contrary ; because a real contraction of production occurs, which is paramount to all other forces at work, and causes a contraction of all circulation. If the currency of Great Britain were like that of France, the well regulated production of iron and cloth there would have enabled Great Britain to have undersold us altogether in our own markets, and would have partially counteracted the excess of production in the United States, because the latter would have been forced out of the field to a great extent, while in Great Britain no overproduction could have occurred under such a system of currency. On the other hand, had the United States maintained a currency like that of France, Great Britain maintaining her present one, there would have been no overproduction and therefore no crisis in the United States, and the latter would have been master of the field, producing at home a better quality of iron and all the cloth of qualities which our workmen have been hitherto able to make, sufficient to meet the wants of consumers, at prices excluding the foreign articles. Independently, however, of all protected production, and regarding only those articles which one nation produces to the exclusion of another, and which are, therefore, by exchanges the chief sources of wealth through international commerce, the effects of high prices resulting from overproduction are, to a great extent, masked in the currencies of the countries taking the high priced articles in exchange. If high priced cloth produced in the United States is sent to a South American port, it is valued in the currency of the latter, and the currency of the latter is received for it, but immediately invested in produce to make up a return cargo. Inequalities of money price,

in different articles, are thus mutually compensated, and consequently masked.

The true remedy of labor, therefore, is to study this complex question of production and currency, and, having mastered it,—if it be able to master it,—to unite its forces with those of capital to obtain a currency approximately as sound as that of France.

If, in reply to all this, labor objects that the matter is too vast, too complex, and too abstract for any practical line of action on its part, and that some definite plan must be suggested if any definite result be expected, I answer that there is a general or abstract view of the matter which is essential to establish true social science; and there is also a very practical view for every-day life. I have examined the subject from both points of view, going from the least to the most complex, and back again. It is impossible to lay down any practical rules to advantage, unless their importance can be demonstrated as matter of science; general causes, moreover, must not be put for effects, nor effects for general causes: objective must not be put in the place of subjective realities, nor the latter in place of the former. Thus the Ricardian theory of rent will answer well enough as a mere theory. Practically it may be considered as of little importance. It is important only as indicating that on this subject of rent effect is put by Ricardo and his followers in the place of cause; and hence it is not surprising that other parts of the science show the same errors. Rent of the poorer lands is no measure of the rent of the richer, but lands are valued according to their relative productiveness and the price of the produce. In the United States the price is determined by many causes, the chief of which is the relative distance of the surplus produce from its final destination in a consumer's market, and the relative facility of reaching it; while, on the other hand, all markets, the ability to withhold for a time from every market, the actual withholding from market, relative scarcity and relative abundance, are minor operative causes. The price on the average is steady, while it varies much within short periods. The surplus not con-

sumed by producers can be exchanged for necessities of another kind; and if no more of the latter is produced than sufficient to exchange for the surplus, the steadiness of the former will extend to the latter. The rent of the richer lands must rise in value first, in order to force the cultivation of the poorer. The cultivation and the rent of the latter *result* from the cultivation of the former. As but little land is rented in the United States, we may substitute for the most part interest for rent, or regard only relative income. The science of production and exchange is not founded upon any such fanciful principles as the Ricardian theory of rent, which puts one of the last developments of a complex process for a primary one.

If this may be said of rent, still more may it be said of a branch of the science more complex, — and in fact the most complex of all, — that of money. It is perhaps impossible to eradicate the idea that ordinary credit is the only element at work in some way or other to produce commercial, banking, and industrial crises. Labor perceives very plainly that when banks loan, and manufacturers borrow freely, wages are high. Hence the inference that abundance of money in the shape of government issues would give abundance of work. But the premises are false. It is not ordinary credit that is at work, either in England or the United States. Suppose a bank should be started in France with a capital of one thousand million francs, without the power of lending a dollar or issuing a note, but governed by a committee of the depositors, the cashier and other officers being required to safely keep the deposits, after paying all checks in gold and silver or bank-notes: probably thirty-three per cent. of the gold and silver would be sufficient to meet calls, and the remainder could be locked up and not seen from one year's end to another. There would be precisely the same amount of money to loan after the bank started in business as before it was ever thought of, and no more; because there are no loans made by the banks, but only by individuals, and they have no more to loan than before. It is only a convenient mode of keeping and paying and receiving the metal and paper.

But let the managers of the bank undertake to open the box containing the surplus six hundred and sixty-seven millions, which have not seen the light for a long time perhaps, and loan it, and they will be giving a circulation to six hundred and sixty-seven millions in excess of all the money circulation necessary to circulate all the commodities required for consumption, and all the production necessary to take the place of the commodities consumed by the instrumentality of the one thousand millions of francs. The holder of money is a producer when he sells products and receives the money, or when somebody else sells and receives for him; when he parts with his money and buys products for his own use he is so far a consumer.

All the surplus money which he retains without loaning is without effect on production. If he loans it all he only loans an amount precisely equal to that amount of commodities the consumption of which is proved to have taken place by the payment of the money to him; and when he is lending another is receiving. But any amount of money circulated in excess of this is in excess of all the consumption that has taken place, and is therefore circulated to pay for unproductive consumption, — or, what has the same immediate effect, productive consumption without a market to exchange the produce. That the owners of the one thousand millions deposited will make all loans sufficient to supply the void created by consumption is absolutely certain, because there will be a constant demand to that extent under all circumstances. Therefore, to loan the six hundred and sixty-seven millions, and keep it constantly in loan, is to cause production to advance beyond consumption to the amount of six hundred and sixty-seven millions; the bank will never have but three hundred and thirty-three millions to meet the calls arising from one thousand millions of deposits, and it will need no more; and if the bank is indefinitely continued, it will have three hundred and thirty-three millions of metal and six hundred and sixty-seven millions of bills receivable to show for the original one thousand millions of metal. Introduce this banking throughout France and one half the metal

now there will leave France, and there will be sixty-seven per cent. more money on loan than there was before. Introduce savings banks and they will add, as auxiliaries to the total of loans, thirty-three per cent. more: individual loans will also increase. This change would produce a crisis; but finally, because this increase in the total of loans, being the cause of precisely so much production upon credit in advance of consumption, would be stopped at a definite point, being thirty-three per cent. above absolute exhaustion of reserve, production and commerce would go on in subordination to the new system. It is the introduction undoubtedly of a new system of production — production on credit largely in advance of a market, but presenting a fixed point at the same time beyond which such production cannot proceed. Prices, production, and commerce are steady at that point, while loans are doubled, and the total of metal in France is reduced one half. This was precisely the economy of metal effected in Scotland with banks of issue only, in Adam Smith's time. The redeposit of the six hundred and sixty-seven millions in the first bank would undoubtedly increase the total of deposits to one thousand six hundred and sixty-seven millions; but all this redeposit would not occur. A part of the six hundred and sixty-seven millions would be redeposited, but most of it would retire from circulation and out of France; and the final result would be, that the old total of loans would be nearly doubled, and at the same time the total of coin to sustain all the loans would be only one third of the former volume; so that beside doubling the loans there would be what is called an economy of fifty per cent. in metal. But this supposed economy is a fallacy. There can be no economy of metal except in doing precisely what was done before with a certain quantity of metal with a smaller quantity of metal. This alone is economy of metal. If the United States maintain henceforth, after resumption, one hundred and fifty millions of convertible treasury notes, it will be an economy of metal to the United States, with an equivalent expansion to the commercial world of one hundred and fifty millions. The well-managed banks of issue in Adam Smith's

time economized one million pounds of metal for Scotland by taking the place of and sending abroad one of the two millions of metal which had circulated in Scotland before bank-notes were issued; but at the same time virtually expanded the metallic circulation of the commercial world while economizing to that amount for Scotland. The economy, therefore, as a whole, scientifically viewed, is imaginary. But let it be called, in obedience to popular ideas, economy, the term is still totally inapplicable to bank reserve. In the two cases of the United States and Scotland just referred to, there is no expansion of production on credit by the notes, as there is with deposit and discount banking. Instead of the same total of loans continuing to be made, as in the United States and Scotland, supposing deposit and discount banks aside in both cases, and allowing only for the increased expansion of the commercial world's total by the issue of one hundred and fifty millions of treasury notes by the United States, and one million pounds of bank-notes by the Scotch banks, the result in France, on the other hand, in the case supposed, of establishing banks, is something totally different from mere economy of metal. While one third of the coin makes all the loans the whole of the coin deposited did before, it is also enabled, by extra circulation out of a consolidated fund, to keep in loan and in addition as much more money. But although these new loans are the sole cause of production on credit largely in excess of consumption; being also at the same time stopped everywhere at the same point, production is kept steadily at that point, and after a time there is no danger of crisis. But introduce now the fashion of allowing every bank to keep such reserve as it chooses (which means, looking behind the mask of money, to allow production on credit to proceed as far as it will), and the inevitable result is a series of cycles in production like those we see in Great Britain and the United States. Now the opinion of Mill, of Price, and others, among British, and of Perry, Walker, and others, in the United States, is, that what banks lend is a credit currency, and Price declares it is like mercantile credit. In some particulars Price is right.

If a bank owes depositors a million of pounds, will it not pay the whole or a part of that debt as one merchant would pay another? Will it not pay by a set-off of credits, or by balancing debt against credit? Doubtless this would be one of the results; and not only to these writers, but to everybody else, it is the only apparent result. But whether it is the only result, or merely one among several results, depends entirely upon whether the payment is real or only apparent; whether it actually pays, or only shifts the debt to other shoulders. When the six hundred and sixty-seven millions of francs in gold and silver were loaned, they caused production on credit to that amount to take place. A sale to consumers who had something to give in exchange for the six hundred and sixty-seven millions of new products would cause a real payment of the six hundred and sixty-seven millions back to the bank to take place; but if no such sale took place, the bank could retire from business by causing its bills receivable to be discounted by a new bank of one thousand millions, having just received that amount on deposit. In this way the six hundred and sixty-seven millions, as well as the reserve of three hundred and thirty-three millions, could be restored to depositors, and the first bank wound up; or the depositors might deposit their checks in the new bank instead of receiving payment in coin.¹ The result would be precisely the same in either case, because production on credit would stand precisely where it stood before,—at six hundred and sixty-seven millions,—and the whole *effect* would be merely to change the persons of debtors and creditors. Where production on credit has taken place, therefore, what looks like real commerce is the total of clearings. But real commerce is the exchange of

¹ Deposit and discount banking could only be introduced in France by deposit of metal and bank-notes, and a loan of these down to a point where the remaining metal and notes would be called reserve. The volume of loans would be what is called by Price and others bank debt. All further loans would diminish still more, as all payments would increase, the reserve; and so far as sales were not for consumption, the effect would be merely a change of bank debtors. But it would be a mistake to suppose that such banks were dealers in their own debt.

products between or towards actual consumers. The rapid increase in volume of loans from day to day, month to month, and year to year, therefore, is only in respect to that increase the creation of additional debt by loans, and shifting to new shoulders of the already existing debt due banks for production on credit, with profits of producers added. This makes some changes in depositors, and very great and continual changes in borrowers, and in debts due banks from each other. It is apparently a matter of debt and credit; and not only apparently but in the result really such, so far as the debt created by overstock is shifted from one set of shoulders to another, and from one bank to another. But all the loans which caused that production on credit to take place in the case supposed in France were made in gold and silver out of the reserve, and so were all such loans in England and the United States, except so far as bank-notes supplemented the want of metal. So far as real commerce takes place, therefore, the reserve is brought up; so far as production on credit expands, it is reduced; and so far as the debt due banks by the original producers on this credit is shifted to other (mercantile) shoulders, and indefinitely to other shoulders by the latter, the reserve remains unaffected. In the United States and Great Britain it is claimed by most writers and bankers that the reserve ought to vary, and must vary. It has been proposed, however, in some instances, to require banks of issue to keep a certain reserve, and it may in some one, or possibly more, instances have been proposed for banks of deposit and discount, but only by way of indefinite precaution, and never as a matter of science. The average reserve in Scotland in Smith's time maintained itself at twenty-five per cent.; in the United States it has been constantly varying, but has averaged probably from eighteen to twenty per cent.; it is impossible to say what it has been in Great Britain, for want of reports. Therefore, what is needed in the United States is a metallic reserve of twenty per cent., and it would perhaps be well ultimately to increase it by progressive stages to twenty-five per cent. This would bring production on credit to a well

defined volume, and thereby insure labor steady employment and steady wages. Should it turn out that too many have left the plow, some must return to the plow. The grand total of production will be thus increased, and harmony of production promoted. But if labor continues to overcrowd certain fields, as it surely will; if production on credit is not limited, and is forced into bankruptcy with capital, through inability to sell what it offers for sale, what right has it to complain more than capital? The example of France is appealed to. I have shown by rigorous analysis why and wherein it ought to be appealed to.

Let labor study this question of production on credit and excess of loans, which is its cause, and seek with capital the true remedy. That remedy is practically concealed from the science of production and exchange so long as it puts effect for cause. The Ricardian theory of rent is practically unimportant, but the theory that a bank deals only in ordinary debt and credit has been productive of vast mischief, because it has retarded the investigation of the very difficult and complex phenomena and processes which underlie banking. Because bank loans represent an equal volume of production on credit, caused by an equal volume of loans out of banking reserve, the consumption of the whole product would restore the reserve to the total of deposits, and loans would be fully paid. To force consumption to a definite ratio with production on credit is the object I propose in a fixed ratio of reserve. But labor may still insist, after all that has been said, that it is impossible to make it clear, or even to succeed in forcing an admission from bankers and writers, producers and capitalists, that a banking reserve of a definite ratio has any necessary connection with production and exchange; and how then can it be expected that men of labor can see any better, and if they do, in enforcing the views of labor on capital? True, indeed, the subject is exceedingly complex; money causes complexity enough by itself, but the extra circulation given to the money of a country through banks so complicates the subject of production and exchange, already complicated enough, that it is almost impossible to discover

what is the real process. It is generally supposed that the principal thing accomplished by banking is an economy of metal. In the supposed French bank, if the depositors had shipped abroad and sold the six hundred and sixty-seven millions of coin for government debt, the metal would have been distributed throughout the commercial world, producing the same effect as if that additional amount had been mined, smelted, refined, assayed, and coined, and so added to the total coin in the commercial world. It would not have been an economy of metal, internationally, but the direct reverse, because it would have added to the total of the commercial world's metal as much as it had been supposed to economize at home. But in common parlance, and in a sense elsewhere explained, it would be economy, undoubtedly, although its ultimate effect would be merely to increase the total of money, and general prices, in the precise ratio of the six hundred and sixty-seven millions by weight of mass to the total mass of all the money in the world, producing so far only the same effect as that produced in modern times by the increased production of mines. If the increased production of metal or its equivalent be economy of metal, then the shipping abroad of the six hundred and sixty-seven millions, and exchanging it for merchandise to import into France, and thus perpetually saving to France the annual interest of six hundred and sixty-seven millions, would be economy. From one point of view, doubtless, it would be economy, because the interest thus annually saved to France would be more than her annual share of loss of purchasing power in the total of money finally resulting from the increase of its effective total by making three hundred and thirty-three millions perform the work of one thousand millions, and up to a certain point the economy might be continued. The same effect would have resulted by loaning the six hundred and sixty-seven millions in France and keeping it loaned, — one set of loans succeeding to and taking the place of another, — and thus allowing the six hundred and sixty-seven millions to be gradually, instead of immediately, distributed throughout the commercial world. But in the latter case, we have exactly the American and English

system ; in short, we have deposit and discount banking permanently established. There is a permanent economy of six hundred and sixty-seven millions, a saving at five per cent. of three millions three hundred and fifty thousand francs annually in interest, and an annual loss on the other hand of perhaps not one fifth of that sum, through loss of purchasing power of the remaining metal in the commercial world by the general expansion, caused by the expansion of the commercial world's total of money by six hundred and sixty-seven millions. All this is comparatively unimportant ; the material point is, that production on credit in France, heretofore, has never been able to get far ahead of actual commerce. While one was lending his money, another was receiving it back from loan ; there was, within short periods, the same amount on hand for loan in the hands of lenders, the same amount in the hands of borrowers, and the same amount in the hands of consumers, because production was proceeding in harmony. Introduce the banking system throughout France, and remove all restrictions in respect to banking reserve, and production might progress in an ascending scale, and go back in a descending scale if there were borrowers, as in England and the United States. The economy of metal would result in an expansion of production on credit, a series of bankruptcies, crises, and national loss, and still more artificially produced inequalities of distribution of capital. Bank-notes would have nothing to do with the result, but an increase artificially of loans, mostly of metal. Production as a whole, and upon an average of ten years, although greatly stimulated, would be too much stimulated, and the result would be a falling off at last in production to restore the equilibrium. There would be an absolute loss of productive energy, because inharmoniously applied, and hence of the grand total of its results ; the total wealth — in other words the total productive capital — of France would not be so great as it was before ; its total income would be less, because on the whole the income of individuals would be less. It is impossible to bankrupt a large number of individuals, both laborers and capitalists, and drive them away from the industry they are

pursuing, because there is too much of it in that one quarter, without in the end causing loss to the nation. Say's abstract doctrine has been productive of loss to labor. Finally, if labor is not convinced, suppose money aside, and capitalists loaning wheat, provisions, and other necessities to manufacturers, to be consumed by them, by their laborers, and by the sellers of raw material; there can be no overstock, because loans cannot be obtained in sufficient amounts. But suppose banks to be introduced, even now there can be no overstock so long as loans are confined directly to wheat, provisions, and other necessities, instead of being indirectly loaned to enable producers to procure those articles, by means of money, and banks which loan only money. But suppose prices of the overproduced articles to rise, instead of falling as they undoubtedly would, with the increase of loans of the articles named in kind, a crisis would inevitably follow, as now it always follows with banks which are never regulated in their loans by their reserve. The same kind of remedy would then be demanded, as I propose now for banks dealing only in money — a fixed ratio of reserve in the shape of wheat, etc., to liabilities. The presence of money and the shadow of loans of money in the shape of bank debt prevent us from clearly perceiving the commercial connection between bank reserve and production on credit in advance of consumption. If the United States had no banks of discount and deposit, and either one or more banks of issue under national control, with notes absolutely and freely convertible at the chief commercial centres; or were the United States, in the absence of all banks, to supplement gold coin with an issue of one hundred and fifty, two hundred, or even two hundred and fifty millions of treasury notes always convertible, there would be an end of banking, commercial, and industrial crises, as we now know them. Such crises would be in mitigated form, and of short duration. But banks are too convenient to be given up, if it is possible to make the mercantile and banking world perceive what banking really is, and the necessity of regulating it in the manner proposed. Labor has even a greater interest than capital in regulating bank loans.

The common opinion is that banks of deposit and discount are entirely harmless in a "speculative" point of view; that "speculators" cannot use them to advantage if the money in circulation be gold and silver,—gold with free coinage, and silver with "token" coinage, or sound bank-notes. If there be any "speculation" in the case, it comes entirely, say some of the writers who use these utterly unmeaning phrases, from bank-notes. If gold and silver, however, can be put in circulation through bank loans, in excess of actual commerce, undoubtedly the same result can be and is accomplished as with bank-notes; and the full meaning of this is, as I have shown in other parts of this work, that deposit and discount banking, by preventing the return of notes for redemption out of the commercial world's stock of coin, aggravates all the difficulties attending a circulation of perfectly convertible as well as imperfectly convertible notes. It is deposit and discount banking, and not bank-note issues considered by themselves, which causes the most of what these writers call "speculation." It is a popular delusion which attributes the "speculation" to bank-notes. Until this delusion is got rid of, there can be no popular advance in the science of money as a branch of the science of production and exchange. Should the United States succeed in making their notes convertible in 1879, and in maintaining convertibility, and should the banks do likewise with their notes (to illustrate exactly what I mean by the expression "this delusion"), suppose all bank-note circulation to be retired in 1882, all banks of issue wound up, and no "greenbacks" or other United States treasury notes in existence; either gold of free coinage and silver of subsidiary coinage, or both gold and silver, or silver alone of free coinage, as the United States may not in the first case, or may in the second case, fully remonetize silver, taking the place of all paper in the circulation, would or would not the abolition of all paper circulation and the substitution of metal in either of the forms mentioned stop "speculation" and production on credit, or would it even essentially modify it? It would not, unless all the demonstrations in this work are

founded on fallacies. The circulation of Great Britain is substantially metallic now, and has been since 1844; and yet she is as subject to panics and crises as the United States. The effect of substituting metal in the United States would be merely to lessen the economy of metal already fully explained, and it would be no more. Metal alone would be seen in circulation, and metal alone would be seen in banking reserve, but the records of production on credit, as shown on bank-books, for which all the national, state, and private banks in the United States now stand guarantors, would continue substantially the same, being in form transferred to a vast number of private banks. Nothing but the entire abolition of bank loans in the future, and the very gradual winding up of these banks, would bring down the volume of labor's products on credit, and as a result the total of loans to producers, to a point corresponding to that maintained in France. As consumption, and therefore actual commerce, gains upon production on credit, the volume of these products on credit grows less, and demonstrates the fact by an increasing banking reserve, both in Great Britain and the United States; it makes no difference that in the latter country the reserve is in "greenbacks." Trade is now (1877) in a healthy condition in Great Britain and the United States; the banking reserves of both countries show what has been accomplished within the last few years in getting rid of old stock produced on credit, and now would be the time to attempt to establish a proper ratio of reserve to liabilities in the banks, were even the rudiments of banking science understood. To fix that ratio at a proper point, and to keep it there, if that indeed be possible, would insure labor that all its future wages on credit, advanced by producers, would be immediately refunded in a consumers' market,—the market of true commerce,—and banking and industrial crises reduced to a minimum.

CHAPTER XI.

REGULATION OF RATES OF INTEREST BY LAW.

INTEREST has no relation to the "volume of money," because money is not a commodity, and the mercantile theory of money as possessed of intrinsic value, and being an end in itself instead of being only means to an end, has been in previous chapters and in various modes demonstrated to be false. The mercantile theory is the foundation of the ideas of scarcity and plenty of money, as distinguished from the use or circulation of money, as an agent in the production and distribution of commodities. The "demand for money" is not a demand for a commodity like wheat, but a demand for the means of buying labor, labor and raw material, finished products intended for consumption, which may be called quick capital, or that kind of property which may be called fixed capital.

As already shown in the chapter on Interest, Rent, and Taxes, and elsewhere, the use of money, by putting it in circulation through the instrumentality of banks, in excess of the actual distribution of commodities for consumption through the exchanges, furnishes to the loaning banks a credit interest in the shape of discount, which, when carefully examined and analyzed, is the fixed share of the banks in the final result or outcome of that production on credit which the loans enable to take place. The banks take the risk of the borrowing producer's being able to refund the money loaned, by one or the other of two modes: first, by sales of the product resulting from the loans, to a merchant who, by the aid of another loan, intervenes as a distributor or one of several distributors between the first borrowing producer and consumers; secondly, if the loan is made

to a merchant, that he will be able to sell the product with all intervening charges and profits sufficient to cover profits, to some other merchant, who, by aid of another loan, comes in time to enable the borrower to pay the money back; thirdly, by sales of the product to a merchant who has the cash in his hand to pay, received for products which have been actually exchanged for consumption. The former two cases involve much greater risks of capital loaned than the third, because in these a market is not yet found, while in the third it has been found, or rather is readily found. In the former two cases the risk increases, as loans of that kind increase, through the instrumentality of all the banks in the country: the more loans made either to cause production to take place, or to buy the product after it takes place, the greater the risk of finding a market of producing consumers. Hence, as bank loans rise, the rate of interest rises; as bank loans fall, the rate of interest falls, because consumption is gaining on production, although, as the result of a crisis, consumption as compared with former consumption is diminished. Hence to attempt to regulate the interest on bank loans by law is utterly abortive, and not only so, but it raises the rate of interest by adding to all the risk of finding a market for the goods produced the risk of evading the law. This risk adds much to the rate of interest, although practically few losses arise from disregarding the law. Were there no bank loans, the rate of interest in the United States, under a perfectly redeemable and well secured national currency of bank-notes, would depend upon the accumulation of capital, the rate of profits, the facilities of intercourse between borrowers and lenders, taxation and risk. The great irregularities in the rate of bank interest depend chiefly upon the latter element of risk. Steadiness of rate is thought to be the most important element for producers; and undoubtedly it is, but it is not an objective reality in itself, existing independently of other considerations, but the *result* of harmonious production.

Regulation of the rate of interest on bank loans is therefore impossible in the face of so many controlling elements,

among which is greatly increased risk in consequence of the uncertainty of finding a market. The risk of finding a market, and therefore the rate of interest, grows with bank loans, until immediately before and during a panic which sometimes apparently ushers in a crisis, fabulous rates of interest are offered, until, the crisis having been fairly introduced, the banks are ready to loan again, or rather to renew loans, because they are no longer in danger themselves, and are willing to protect their customers, after they are safe themselves, or after their own bankruptcy is established, as the case may be. Production then falls off because the fact of overproduction, which is excessive production on credit, is then established, and a reaction sets in which brings down the prices of the overproduced article, precisely as it brings down the rate of interest. Both fall in the same proportion that both had formerly risen. This is a true analysis of interest on bank loans. Independently of bank loans the controlling elements are the same, but there is a vast difference in the amount of the risk. Hence, independently of bank loans, the rate of interest is comparatively steady. But all loans to producers involve more or less risk, and all such loans are made in expectation of profit to the borrower, interest being in all cases the fixed and agreed share of the lender. Now to attempt by law to fix this rate is more practicable than to attempt to fix by law the profits of the borrower, but it is in principle quite as unreasonable while it is practically productive of more injustice to the borrower than to the lender. How did the idea of prohibiting usury and fixing the rate of interest by law arise, and how is it still maintained?

It must have arisen in those early stages of society when no loans of money to producers were made, because society had not developed to a sufficiently complex state for that purpose. The use of money as a series of units of valuation, purchase, and payment localized in some commodity, and hence assuming the appearance of an ordinary commodity like our gold, silver, and copper coins, arose at a very early period in the development of society, and continued for a

long period before loans of money to producers and merchants took place to any important extent. Every man was his own producer and merchant; but money being in use to make exchanges, while there could be at the same time no call for loans, except on the part of those who did not expect to make any profit by investing it in labor or merchandise, but wanted it for a time to enable them to procure some article which for the time they could not otherwise obtain, to exact interest on the money which the lender could for the time spare, and on which the borrower could make no profit, seemed to be unjust. That idea has lingered and still lingers. It no longer has any foundation of fact to support it, and for the true interest of all producers and therefore of the whole commercial world, it ought now to give way.

CHAPTER XII.

ANALYSIS OF THE TAXATION OF MONEY AND ITS RESULTS.

THE taxation of money logically results from the mercantile theory of money as possessed of intrinsic value, and being an end in itself instead of only means to an end. Money cannot be consumed, nor can it produce: it is only a potent auxiliary to production. To tax money is, so far, double taxation, so long as all capital and all commodities are taxed. Money in the possession of an individual is the evidence of products exchanged and consumed by others. To tax it as capital is to tax the holder of money by way of excise on this consumption of others, and on the production which he individually, or representatively, by loan, will, in the future, cause to take place. To tax depositors for the amount of their deposits is to tax them first for their share of money in the reserve, and then through their share in bank debt over and above reserve, for so much production on credit, the products of which are not yet sold, while the producer who owns the goods is taxed for a like amount as owner of the goods. To tax the banks on their deposits is to tax money in the reserve a second time by way of excise, for the consumption it demonstrates to have taken place, and for the production it will by loan cause to take place in the future. To tax the banks for the debt they owe to depositors, over and above reserve, is to tax a second time the production on credit, which that debt demonstrates to have taken place, and before any sale of the product.

When banks are taxed on deposits, therefore, there is double taxation, through reserve, and threefold taxation through bank debt. There is but one remedy, — to tax only income, in order to avoid double and threefold taxation,

or what is perhaps more practicable, as far as possible by way of excise. The subject is complex, however, like all others in reference to money, and difficult for people at large to comprehend; but the propriety of taxing income alone, or reaching it as nearly as possible, through consumption, ought, it would seem, to be susceptible of being made plain, without very rigorous analysis. Taxation of money is born of the mercantile theory of money as an ordinary commodity and an end in itself. It is neither, because the more an ordinary commodity is used, the higher goes the price, quantity remaining the same; but the more money is used, the lower goes its price, quantity remaining the same. Hence it is a matter of absolute demonstration, that it can by no possibility be in its character of money a commodity in the same sense as copper or wheat. Hence, also, it follows that it is a conventional process through a series of units to distribute the fruits of labor, by, first, valuing, secondly, acquiring, and thirdly, paying for them; because in no other way could such a result follow. We thus arrive at the logical and therefore natural development of the original idea of money as a mode of valuation by units, into the same units localized and limited by a commodity and again by units of debt in bank and government notes. The same mercantile idea has developed the erroneous theory that banks deal in debt, while the circulation outside of banks consists of bank-notes and metal, because a bank could undoubtedly sell credits by book entry to be used in payments, and as fast as these were deposited could loan them as it would bank-notes, but they must be deposited before the bank could deal in them: whatever is the circulation outside is that which is deposited and in which banks deal. But a promise or liability evidenced by a piece of paper is substantially the same as a promise or liability of record, and in the absence of convertibility means units of money limited by commodities according to the original idea, with the further developed and also realized idea of localization and limitation in paper or book. Hence, in order to understand money, we must go back to the original idea and follow the

development of it. In this way and in no other can all the phenomena be explained. If we can overmaster the mercantile theory, we shall see further that, in order to complete our knowledge of money, we must look at the results it accomplishes aside from the process itself. If the oftener the same total of units of money, however localized and limited, is used, the less becomes the value of each unit, this means that inversely so much higher goes the value of each unit of commodities exchanged for it: the two values are inverse to each other. All this accounts plainly and clearly for the fact that in deposit and discount banks the depositors can always get all of their money they may want, because everybody is not using money at the same time: when one man out of ten thousand is using his money or a part of it, ten are not using their money at all, and there is, practically speaking, scarcely an assignable limit to the use of deposits by banks, except when a panic resulting from overstock occurs. This practically unlimited power of the banks to put money in circulation by loan accounts fully for overstock, and nothing else will; for, money aside, the natural law of decreasing value in a commodity, through the increase, by manufacture, of its units, checks overstock within short periods, if the commodities are supposed to be brought directly together for exchange, but where money is used to exchange them, the increase of the units of money for that purpose, through bank loans, raises the price of the units of commodities, in opposition to the natural law of depreciation, while it at the same time lowers the price of the units of money, and by the very fact of doing so, until the natural law of depreciation at last asserts itself in a crisis. The full development of the fundamental idea of money having been thus arrested, not in fact but unconsciously in the minds of men, the mercantile theory has been of service in conveying the idea of absolute and not relative value in money treasure, as in plate and jewelry. This has had the conservative effect of keeping large masses of treasure from being used as money in such a way as to affect the stability of prices. The persistence of the idea

has kept money from being paid where it has been accumulated in large masses, except in exchange for commodities, in like manner as it had been received in exchange for commodities. The stability of its purchasing power has thus been maintained by limiting its use exactly in proportion to the increased use of commodities. The mercantile theory, therefore, has a beneficial, because a conservative, effect in limiting the use of money by the actual increase of commodities, but it has a pernicious effect in banking by having naturally and logically developed the idea of economy in money, like economy in fuel or household consumption of any kind. The economy consists, first, in the increase of the total number of units of money distributed through commerce, by the instrumentality of bank-notes; and when the redemptions in the commercial world's gold are complete, this in the end does not materially increase production; secondly, in the increase of the circulation of the units of money belonging to depositors by loaning to producers, while still supplying all the calls of depositors. The general effect is to be looked at, and that is the same as if the producers had borrowed the necessities of life to produce on credit, and the bankers had guarantied the loans. To tax money, therefore, is in effect not to tax a real thing having an absolute existence, but a process of production and consumption: it is not, in a national or commercial world's point of view, to tax a reality, but the mode by which it is brought about.

Thus the examination of money in each aspect of its complex development is more or less to repeat analysis, because the grand object of money is, in its first stage, to exchange commodities; in its second, to help to create them as well as to distribute them; and thirdly, through deposit and discount banking, to give still further aid in creating while at the same time distributing.

CHAPTER XIII.

TARIFFS AND PRODUCTION.

THE subject of "protection to home industry" has no direct while it has an indirect relation to the subject of money and its uses; for "protection" bears upon production, while production is largely carried on by means of loans of money, received for goods actually exchanged for consumption, in the absence of bank loans; and under banks of deposit and discount to a considerable extent by means of loans made in excess of such exchanges for consumption.

It is not true that tariffs or taxes cause commercial crises as sometimes asserted, nor is it true that improved machinery and improved processes of manufacture, progressively requiring fewer and fewer hands to work them, are causes of such crises. To suppose so is to suppose that real advancement is retrogression, although the improved machinery and processes, as well as taxes, may help to accelerate or intensify the effects of a commercial crisis, after the primary cause has acted. That primary cause is excess of production on credit, as elsewhere shown. But how can a tariff aid in accelerating or intensifying the result? It can aid in two ways, first, as a tax, and secondly, as a bounty. It can aid as a tax, because the more taxes there are, so much less is the profit fund which supplies consumption, restores what is lost by waste, and adds the remainder to capital. The tariff, like all taxes, helps to deplete the fund out of which producing consumers supply their wants, leaving them so much the less to exchange with those who have overproduced on credit, and who are so far deprived of a market, but it is not because it is a tariff to protect, but because it is a tax. The consumption of those who spend

the money collected through tariffs and other taxes is, on an average, of the same kind with an equal number of other people taken at large; but all taxes help to increase the excess of relative as compared with absolute necessities, when production on credit is excessive, as in the United States. The unproductive consumption which takes place by reason of a tariff furnishes a better market for the absolute than for the relative necessities of life, whose production is supposed to be protected by the tariff; but the general result is the same, whether the money is collected through a tariff or any other tax. The consumers of products consumed by the aid of money collected through a tariff, help to accelerate a commercial crisis, not because the money is collected through a tariff, but from the fact that it must be collected, and paid, whether it be by means of an ordinary tax or by a tariff, in order to pay the expenses and debts of government. The higher the rate of taxation, the less all producing consumers have to enable them to consume after they have paid their taxes. There is all around, then, in proportion to the total of taxes collected, whether by tariff or otherwise, a loss of ability to exchange in consequence of taxation, whether accomplished through a tariff or any other mode of taxation; and the unproductive consumers who spend the money buy more of the producers of absolute necessities who have no protection, than of the producers of the relative, who are, by supposition, protected. As a tariff is paid—at least in the United States—on relative necessities, if it were not laid on the article which pays it, it would be laid on some other article of relative necessity. If laid on raw material, it raises the price of the manufactured article accordingly, to the producing consumer, bringing about the same result, in the way of exhausting the producing consumer's power to buy the article.

But if the raw material be necessary in order to produce a protected article, the tariff on raw material is equivalent to taking off so much from the tariff on the protected article, so far as the protected producer is concerned, and thus

so far defeats the protection of one producer by partially protecting another. But it makes no kind of difference, so far as its influence can aid in bringing on a commercial crisis, where or how the total of taxation may be laid: it is simply an exhaustion, greater or less, according to the higher or lower rate of all taxation, — national, state, county, city, town, and village, — of the total power of exchanging. The producers of relative necessities are exhausted the most, because they relatively sell the least to the unproductive consumers, who consume the proceeds, in commodities, of the taxes and tariffs collected. Were a tax to become unnecessary, by reason of a reduced rate of taxation, there would be so much the less unproductive consumption, and therefore so much the more productive consumption. There would be less unproductive consumption of absolute necessities through that portion of taxes paid out of profits realized in the shape of cash for overstock sold outside of a consumer's market, and therefore in a market where purchases are made on credit in the guise of cash, and so far the elements of a commercial crisis would be diminished.

In a national point of view, then, taxation of all kinds is an exhaustion of income ranging with the rate, having no direct effect, but exhaustion, except where production on credit has been carried to excess, and then according to its greater or less weight it aggravates the rate of exchange against the relative necessities of civilization and in favor of the absolute necessities of life: it aggravates the difference but does not create it. The difference arises from a cause which is paramount to all taxation. The result is the thing to be looked at; and in every case the result of reduced taxation is to increase the ability to exchange on the part of the producers of relative necessities; of increased taxation, to exhaust it. If, as would probably happen, the taking off of a tariff through reduced taxation sent the usual average of those, who in consequence ceased to be non-productive consumers, to the production of absolute, and the usual average to the production of relative

necessaries, there would be so much the less unproductive consumption on the credit of exchanges between absolute and relative necessities to take place in the future. It is difficult, therefore, to imagine upon what grounds it is asserted that a tariff, any more than any other tax, has any direct effect in bringing on commercial crises. It may be said that it stimulates production and thereby the tendency to overproduction; but if it does, it must necessarily, to an equal degree, render consumption impossible, by raising the relative price of the protected article, and so far, by checking consumption, at once arrest overproduction.

Because a currency must give steady prices, which is used only for the exchanges of a consumer's market, a paper currency of sound banks thus used, would be sufficient without metal, because the forces moving production control circulation, and under such a currency taxes would have no influence in bringing on a crisis, because with harmony of production there could be no crisis. But because inharmonious production is possible, and banks furnish the conditions which make it possible in Great Britain and the United States, prices rise with production on credit; and they then fall, because production falls. The paramount force at work is production (working through bank loans), which progressively increases and then progressively diminishes and thus completes its cycle. The power or force in operation, then, is something entirely superior to tariffs or any other taxes, which can only have a subordinate influence in producing the result. So far as a tariff acts partly as a bounty, without stimulating production to control the market entirely, it operates unjustly to the producing consumer, but so long and so far as it operates as a bounty, it partially defeats its own ends by diminishing, in an equal degree, the power of the producing consumer to exchange for the article protected by bounty; but ability to control the market can never come under our currency. On the whole, with a few changes in favor of raw material and perhaps reduction of rates on some protected articles in the United States, and possibly some increase for revenue purposes on others, what is really

wanted for American as well as English producers is the protection of steady prices, which will aid in maintaining steady production and arrest overstock by arresting overproduction at a fixed point. This is a kind of protection much needed, which can only come by maintaining a fixed ratio of banking reserve to bank liability, or by abandoning bank loans. There will be more protection from a sound currency than from any other cause: this is the real avenue to foreign markets for American producers.

The question of the policy of imposing tariffs for the protection of home labor is not a question of money at all. Abstractly, no doubt, and indeed, practically, the closest approximation to freedom of intercourse is desirable, in order to promote civilization and true progress; but taxes must be levied in some form, and if a tax by way of tariff is levied upon importations of a certain kind, the end in view may be to stimulate the home production of that article. If the stimulus has only the effect for an indefinite period of supplying by home production a part of the demand, the remainder being supplied by importation, the result is, to impose a bounty on the production of the home article at the expense of the consumer. But this, although taking from A. and giving to B., may be justified if the result will be, within a reasonable time, to supply the consumer with the home article cheaper than before, by reason of the established and increased production at home, the tariff on the protected article falling off entirely, and taxation, by tariff, on that article, being then transferred to something else.

The American producer absolutely requires, at this time, the protection of a stable currency, and to him it is not material whether it be made stable by silver or gold: the objections to the remonetization of silver are of a national-financial, and international-commercial, rather than a national-commercial character. The difficulty lies in hitting the bullion ratio in the world's bullion market. If the ratios be fixed by the United States at 16 to 1 and the silver bullion market be raised in consequence from the present rate of say 17½ to 1, to 16½ to 1, thus falling short of the Amer-

ican ratio of valuation by three per cent., the general government will be absolutely and unquestionably bound to pay the difference by way of premium on every delivery of silver it makes. To repudiate three per cent. of its debt, is what the government of the United States cannot afford to do. For the rest, a difference of exchange varying up to three per cent. against the United States will follow, unfortunately, but unavoidably. A better way would be to limit coinage and try the ratio of $15\frac{1}{4}$ to 1, as more likely to agree with that of the world, and a still better, to postpone it, until all nations are ready to agree upon a ratio. But a stable currency of some kind is essential, because although the exports of the United States are partially valued in United States currency, when purchased at home, because the latter have an influence as well as the countries to which the produce is sent, in fixing the price, yet under all circumstances the latter, being buyers of a surplus, will have the largest influence in fixing the price, and the exported produce must necessarily be disposed of at relatively lower rates than produce of a kind not exported; thus increasing the nominal expenses of living, proportionately against the American producer, in consequence of the relative depreciation of gold as money in his market, compared with that of his competitor, and so adding relatively to the cash cost of his production.

But tariffs, unless levied on raw material, have no effect in increasing nominal cost of production to American producers merely because they are tariffs. This cost is a question of currency only, while it is not a question of currency merely but of relative exhaustion of producers which is raised by all national, state, city, county, and village taxes, including tariffs in their character of taxes. Under the American banking system, even with a convertible currency, a large portion of taxes of all sorts, including tariffs, is paid out of profits declared on sales of stock, which finds no consumer's market. This is paying taxes on credit, to unproductive consumers, on the side of the producer of relative, while the producer of absolute necessities pays his taxes out of profits received on sales in a consumer's market.

The latter market is drawn upon largely in excess of the former, which tells as an auxiliary in helping to accelerate a crisis. But it is not protection which does this ; it is taxation ; and the greater the total of tax, the worse for the side of the producer of relative necessities, whether protected or not, because it increases the glut.

CHAPTER XIV.

MONETARY SYSTEM AND PRODUCTION OF FRANCE: HOARD- ING IN FRANCE AND ELSEWHERE.

It would be more correct, in subordination to what has already been said, to say that France has no monetary system, because, with the exception of the limited influence of the Bank of France as a bank of deposit and discount, she has no established system of maintaining production on credit, the circulation of money being left to itself. All the vast total of remittances to pay her military fine to Germany were the proceeds of goods sold in a consumer's market, where there was no blocking of the exchanges. Money cannot be loaned in France to cause new production faster than a consumer's market warrants it, because the money loaned is all received from sales in that market, and it can be loaned only as fast as sales are made. Such is necessarily the case in a country using a metallic circulation for the most part, with only moderate issues of bank-notes. The metal and the notes are equally distributed by real commerce, which exchanges between two producing consumers who sell commodities, and not between a producer who has only money and another producer who has only labor. The secret of the prosperity of France is, that she has no overstock to seriously embarrass her anywhere, and hence she has safely passed through the disturbances to her own production arising from the commercial crises of other countries. Her taxation, by reason of political, not industrial causes, is enormous, and with a system of banking like that of Great Britain and the United States she could hardly have succeeded in carrying out such enormous monetary undertakings. Her debt has all been returned to her from abroad,

and remains at home. How did she get the means to make such enormous payments? By sales of her productions in a consumer's market—the market of true commerce. Her taxes are paid, not out of the actual profits of one set of producers borrowed by those of another set, which must be the case with taxes paid by producers on the credit of what they have produced, but not sold, or which the purchaser from them cannot sell. The taxes are not merely paid in coin, but in coin which has just before made exchanges of products between two producing consumers, instead of merely going into the hands of the tax-payers in the character of money, which has enabled products to appear and to go into overstock for want of a market. All this has been accomplished without deposit and discount banking, the treasury helping very largely in making the money exchanges. Harmony of production with sufficient energy of production, accumulated capital, the product also of that harmony and energy, together with economy, are the active causes or forces which have made the result possible by the aid of a currency the safest because the steadiest in the world,—that of a metallic currency distributed by real commerce, and not real commerce combined with commerce on credit and confidence of future exchanges instead of actual exchanges. France has had a very harmonious development of industry,—of production on the side of absolute as well as relative necessities,—producing on the average nearly enough of the former for her own consumption.

Again, the natural inequalities in the distribution of wealth, which are themselves the cause of increased production and of all civilization, when left to themselves entirely, have not been artificially increased, as in England to a considerable and in the United States to an enormous extent, by production on credit, and sales in the speculative markets of overstock to merchants who do not know that they are buying on speculation (that is to say, on the chances of a market), and by the enormous expenditures on labor, outside of absolute necessities, which follow. Enormous losses through bankruptcies under such a system do not occur in

France; they do in the United States, and cause not only loss of capital and of productive force, and, on the average, of quantity of production, but also increase immensely the natural inequalities in the distribution of capital, already sufficient without any artificial stimulation. There is no loss of productive energy in France, and population as well as production approximating its limits is maintained at nearly the same figures.

With all this harmony of production, it is not so surprising that M. J. B. Say, in his treatise on Political Economy, maintained with such force the impossibility of overproduction. The abstract proposition, which is true, was and is verified by the practical proposition as matter of fact upon short averages in France; and why? Because, as I have demonstrated before in numerous forms, the abstract proposition, although necessarily true upon the average, is false outside of the average. In order to create it, there must be variations on each side of average. The variations are slight, if left to themselves, — slight at least for all practical purposes; but because there can be comparatively little economy in the use of absolute, while there may be very great in the use of relative necessities, the immense improvements in machinery and processes, and in agriculture of all kinds, as well that devoted to the production of raw material as of absolute necessities, — the latter never being overproduced, — overproduction of the relative necessities has not been created or caused, but rendered possible, — possible because it has frequently appeared. But because producers, including workmen, must live on credit purchases of the absolute necessities while producing the relative, not directly upon mercantile credit or some other credit of a similar kind, but in the shape of money paid out for labor, and through labor for these necessities, in excess of the actual exchanges of the products of that labor for the necessities, thus causing an exchange of money for necessities only, the tendency to excess of production in respect to relative necessities, through the causes before mentioned, is carried so far as to create a crisis in production before it is arrested, —

first, from the unlimited power of loaning, and, secondly, from the rise of prices resulting from the increasing circulation by means of increasing loans. The natural tendency of all comparative overproduction (and there is no other) is to depreciate the product as the overproduction advances. This depreciation is an ever-present demonstration of loss; and this, if it be impossible to borrow the means of continuing it by the aid of loans, checks it at very short intervals. The money lent in France in order to produce is lent by capitalists, and they receive it only as it is returned to them by borrowers who have sold stock or overstock. But the overstock is merely nominal. Practically it is not overstock; it is only a stock sufficient to supply customers, and in this sense some overstock is essential. The utmost extent to which production on credit can be carried is limited by the possible total that can be on loan at any one time. There can be no expansion of loans beyond the limits allowed by the money actually found in the various reserves of capitalists. Loans cannot vary without reference to these reserves, as they could be made to vary if all the gold were consolidated in one reserve, and as they do vary, without reference to the reserve, in the Bank of England. But is there not a large amount of metal in small reserves called sometimes hoards in France, which are not loaned to producers, and therefore have no direct influence on production? Doubtless there are such reserves, and they have comparatively little effect upon production, but still they have their appropriate share, because they have been received in exchange for products sold. The money in one hoard may occasionally go out of that hoard into another in exchange for land, and it may, by reason of that exchange, be brought into the mass of loanable money for the purposes of production; but all such movements are slow, and have but little influence upon production. But suppose all the hoards to be brought together, and kept out on loan for the benefit of the owners alone. A stimulus to production would undoubtedly result, but it would have its fixed and not its variable limitation, and therefore it would not be an unhealthy stim-

ulus. It would have its fixed limitation in the impossibility of reloaning any money once loaned until it came back into the grand hoard through actual sales of the commodities produced by the aid of former loans. The power of loaning would be limited by the sale of commodities, and not the production of commodities. Now the sales of commodities vary everywhere, undoubtedly ; but they vary in France on short average, because the demand they supply, if there is no disturbing cause, varies on short averages. This last average is the true regulator, because it is the paramount force which regulates production, and, through production, the circulation of money. Paying out money for commodities, and loaning money to produce them, constitute the circulation or expansion of money, and receiving it in exchange for commodities, and in payment of loans, constitutes contraction. There can be no expansion of loans beyond payment of loans, therefore, even if all the money in the grand hoard is loaned out as soon as the consolidation of the hoards takes place. Producers, on loaning to them all the money in the grand hoard, immediately invest it in production, and so produce on credit, but they cannot produce another franc's worth until they sell. Now all this money is banked or massed and then loaned, to cause production on credit ; but there is a fixed limitation to the production in the comparatively fixed average of consumption. Production on credit would raise prices until the money in this bank was exhausted, and then the upward turn of prices would be arrested. The final result would be production on credit, limited by a nearly average reserve of cash in the bank. But allow the owners of the hoards to merely bank their money in an ordinary savings bank, receiving a fixed rate of interest for the money, the managers making all the loans themselves, every owner of a hoard can be furnished with his money whenever he wants it, and at the same time there will be no fixed limit to loans. All the money wanted on loan can be had subject to one condition only, — that every hoard-owner shall be paid whenever and as he wants the whole or a part of his money. Loans will now vary as production on credit varies, and will no longer

have their limitation in the sale of commodities. What is the cause of the change? The change comes from the variation in what are called deposit loans. There will be a drawing out going on on the part of some of the hoard-owners, and a putting in on the part of others. These currents mutually supply each other, seventy-five per cent. of the money remaining out on loan upon the average, as we will suppose. This seventy-five per cent. is an excess of all the circulation in exchange for commodities, and labor to produce those commodities, which could possibly have taken place if the hoards had not been banked at all. But the twenty-five per cent. reserve still supplies the same amount of circulation that it did before the banking of the hoards. If it remains steady all the time at twenty-five per cent., no more loans, and therefore no more production on credit, will take place, except as the reserve is increased above twenty-five per cent. The future circulation of money out of that reserve or bank will be limited by actual exchanges of commodities. But if loans are not stopped at that or some other definite point, they will continue indefinitely to be made out of the incoming stream of deposits, and therefore in excess of the outgoing stream, which pays for commodities and the labor which supplies them only as fast as exchanged and consumed. All the interest paid on this excess of loans is paid on credit, because in excess of actual exchanges. It is paid, not on sales, but on commodities produced in expectation of sales. Now introduce this system generally in France, and production would be largely increased; introduce commercial banks of deposit and discount everywhere, and make the savings banks their auxiliaries, and we have substantially the American and English systems. Less gold and silver would be needed, and the distribution of these metals would be seriously disturbed. But it would be impossible to introduce them all at once; a change of this kind would be slow, and its effects would not therefore be so injurious. Under all circumstances, the persistence of national habits would be the source of safety.

But suppose the whole American banking system in full

operation : what would circulate in France ? Would not France have a solid "monetary system" like that of England, the Bank of France taking the place and performing the functions of the present Bank of England as depositary of the treasure of the various banks ? Would not the notes of the Bank of France vary as gold now actually varies in France ? Nothing of the kind. They would vary according to the volume of them paid out for labor, and raw material, which is labor accumulated in results ; and this will be demonstrated by a rising scale of loans continually increasing, in excess of the metal coming in, and therefore varying away from, and not with it. Now will the resulting clearings and book entries be themselves the payments which will be made into and out of the reserve, or will they only register the payments going in and the payments going out ? Certainly they will be only a register. In one sense only will there be any credit or any debt connected with the movements of the reserve. It will be the resulting credit of depositors and corresponding debt of the banks, which is shown by the constantly and slowly advancing excess of payments above receipts. This difference marks the advance of production on credit in excess of producing consumers' markets, which is going on, and to a corresponding degree the amount of products consumed in supporting the producers on credit, in anticipation of future sales of their overstock. The *result* is the same as if these producers had borrowed the necessities they thus consume upon the pledge of the overstock guarantied by their own capital, with a collateral guaranty by bankers. It is mistaking this *effect* for an active cause which has led British and American writers and bankers in the very midst of this kind of banking to suppose that the actors in this drama of commerce and banking were merely balancing their debts by credits and their credits by debts. There is in the result, not a balancing of debts, although balancing is continually going on, but a borrowing of absolute necessities to pay for producing relative necessities. There is no other way or mode of borrowing to an extent sufficient to produce such a result as a commercial crisis but through

a credit circulation of money. The laborer, the stockholder, the merchant, and the capitalist, who receives money, does not know, and does not stop to inquire, whether the money he receives has come from sales of produce which will not be consumed for years, from cash paid over as profits on such sales, from resales of the produce, or from loans paid through such sales. Nevertheless, the fact is, that the producers owe all this money, and through and by having borrowed it in excess of actual exchanges of commerce, have, as a result of all the money exchanges, merely borrowed the necessities of life for the most part from capitalists, which they must refund in the shape of money by sales of the overstock, making good the loss out of capital, the banker losing what they are unable to pay. This is the kind of credit that is used, and the kind of debt that results. The exchanges which are cleared through the bank, and which look to these writers and bankers like a set-off, are not those of a consumer's market; they are merely the exchanges of purchasers on credit from those who have produced on credit, by substituting the former for the latter as bank debtors, with enough more loaned to pay for profits. The exchanges of a consumer's market would produce a very different result, because they would cause payments into the reserve. Hence banking reserve always increases when the volume of exchanges of a consumer's market exceeds that of sales on credit after the clearings are completed.

The question may now be well put: Would France or the commercial world be benefited by her introducing the American or the English banking system in full? Unquestionably, no. It would introduce into her industry and her commerce as serious perturbations as she has suffered in her body politic, and which, for the advancement of civilization and the peace of the world, it is to be hoped she will gradually overcome. It would greatly injure her and disturb the ratios of metallic distribution. Whether the introduction of the banking system gradually in the future, when the true nature and effects of banking are understood, and a plan of limiting bank loans by a fixed rule is adopted, is another question

which need not now be discussed. One thing is certain: that in the present state of knowledge on that most difficult and complex subject of money, bullion values, circulation of money, banking, etc., she is better off in her present condition, because the overruling forces which control the exchanges of commodities, through demand, and thereby the subordinate forces of money circulation, by which the exchanges to meet demand are effected, are now left to their natural limitations, and not temporarily subverted by exchange of credit in the shape of money for commodities, by a large class of producers who produce beyond their ability to exchange. That France is better off to-day with the hoards as they are, than with the hoards consolidated and loaned under deposit and discount banking, is unquestionable. The truth of this proposition ought, in the opinion of practical men, to be considered as demonstrated by her present conditions and by what she has accomplished. Money being in true science a conventional commodity, — and to call it commodity at all in the ordinary sense of a commodity is only a convenient stepping-stone towards its true designation, — possessing value only in what it buys, and having no productive qualities in itself, whether interest can advantageously be paid for the use of it under given conditions is a national and not a local or personal question. If it will increase not only the total of production, but find markets for the additional production it causes through loans, to take place, then the loans are advantageous; otherwise not. With the present abundant production of raw material, and increasing economy of hand labor, production on credit needs to be checked, and the only means of checking it lie in controlling the rate of production through loans. There are too many away from the plow, and constantly leaving it to to earn their living in other fields, and the only remedy is to send many of them back. They can only be sent by a limitation of the extent to which they shall be allowed to produce on credit. The improved machinery and economized labor are so much advancement gained by mankind, but it is turned into a curse instead of a blessing, as it ought to be,

by the want of any limitation to loans except an industrial crisis. The improvements have enhanced the dangers, but they are not the cause of the principal effect; and it is exceedingly important to get rid of the fallacy existing in the assertion that they are the cause or even one cause: they only advance the conditions under which the cause is made more effective. Interest is paid, not only out of the profits of production realized through the exchanges of markets of producing consumers, but out of profits borrowed on production before goods come to that market. All the interest of the first kind paid is paid to the advantage of the whole country, and the more of it the better; all the interest of the latter kind is to the disadvantage of the country, and the less of it the better.

But why have not the enormous issues of inconvertible bank-notes by the Bank of France, equaling perhaps, if not exceeding, the total of gold, silver, and convertible bank-notes of the bank in the hands of the people at the time of their issue, and following the late Franco-Prussian war, advanced prices to a much higher point than existed before the war? If gold and silver have a mercantile value, and the notes were used as a substitute, why did not the notes depreciate largely below the mercantile value of the coin, if there be no essential difference between gold regarded as an ordinary commodity and gold as money? If the paper did not become a substitute, such immense issues ought to have caused great loss to the holders. But it did nothing of the sort. There was probably some rise of prices, but in respect to that we have no reliable or definite account. The rise, however, must have been slight, otherwise it would have been specially noticed, and we should have heard of it.

Can this important fact be explained upon the mercantile theory any more than the fact that between 1793 and 1816 in England, when Bank of England notes were at a discount of twenty per cent., they had lost purchasing power or value in exchange to more than twice that amount, while substantially the same may be said of paper money after the

close of the late civil war in the United States ? There is but one theory which explains it, and that is the one I have given and have in reality repeatedly demonstrated already ; and that is, the theory that money is a conventional process for exchanging commodities, and labor and commodities, by a series of units located and limited. This is what money really is, although the mercantile theory of it as a commodity cannot probably be eradicated for reasons which I have given, and ought not to be, except as a scientific proposition. The inconvertible bank-notes of the Bank of France formed in every hoard or merchant's money reserve, a sum equal on the average to all the metal in it ; the volume of money was doubled, and yet prices did not materially rise. The metal was retired by the notes and the notes took its place : the old mercantile theory retired the metal as if it were bullion or plate, and put the paper to a good use as a unit of valuing, purchasing, and paying power, guarantied to be maintained as such by the bank, and virtually by the government of France. Here are the two theories in practice side by side ; one retiring the metal as having intrinsic mercantile value, and the other putting the paper unit in circulation as having no such value, except in those commodities it can value, purchase, and pay for. Such, undoubtedly, is the theory of holders when paper money is indefinitely inconvertible ; and if gold and silver were to go out of use, and an international paper currency guarantied by governments to take their place, such would be the latter. The objections to such a currency would be the want of the absolute and definite limitation to the multiplication of units, which may also be called the self-acting limitation existing by the very necessities of the case, in silver and gold, and also the absolute impossibility of any substitute for the mercantile theory being applied. That theory retires vast sums in such countries as China, which, if used as freely for circulation as they would be if paper money, might have very disturbing effects. In such countries the demand for money as a valuable commodity like plate, to keep until wanted, must be large ; and such is the case in all countries where a

temporarily inconvertible currency is issued. Even in the United States, before the banking and commercial crisis of 1857, one hundred millions of dollars in gold were virtually retired from circulation by a currency, all nominally, and a large portion really, convertible. Gold as well as silver will retire more or less from circulation, under a paper currency entirely convertible, unless a fixed ratio of bank reserve to liabilities can be maintained ; and then it will be forced into circulation, concurrently with bank-notes, and will supply and be supplied by the reserve.

These are the reasons for the retirement of French gold and silver as so much bullion and plate for the most part, and the appearance of the paper in their place. The paper did not materially raise prices, because there were no banks to give it a circulation in excess of actual exchanges. It did, however, in all probability, carry up the price of *rentes*, for which it was largely exchanged, to the great advantage of the government and people. Hence, if gold and silver were the exclusive currency of the world, without any banks whatever, nobody would be receiving interest unless somebody were earning interest, as his representative in the great field of production, and the theory of mercantile value in gold and silver would be only a matter of curiosity in the development of money and its uses, and not of any practical importance. But since the theory has such a strong hold upon the human understanding, that it is still at this day taught as matter of science, while by reason of the development of the complex results of banking there is a practical application of it to regulate banking reserve, and furnish a substitute for a commodity, in what is called bank credit, the theory must be subverted by actual demonstration. It is doubtful, however, whether any practical benefit can be realized very soon from the demonstration ; but in time it must prevail sufficiently to produce some results in respect to banking. For the present, France is better off without banks. Exchanges, maintained at average within short periods because left to themselves, — that form of debt and credit which consists in lending and borrowing the use or

circulation of money in excess of those exchanges being very limited, — persistence of national habits, except as they are slowly modified by time, energy of production and the economy which results from no misdirection of that energy, make France prosperous. Her “monetary system” is good because it does not interfere with these.

CHAPTER XV.

**BULLION VALUES : MONEY VALUES : BULLION AND MONEY
VALUES COMPARED : A COMMERCIAL CRISIS THE LIMITA-
TION OF EXPANSION FOR GOLD AS WELL AS PAPER,
UNDER A VARYING RATIO OF BANKING RESERVE.**

THE misconceptions existing about bullion values grow, like most others relating to money, out of the theory of mercantile value in gold and silver coin, the commodity or barter value of the metal being confounded with that of the coin. Gold and silver coin being supposed to be ordinary commodities, like other metals which are not used as money (and it is almost impossible to resist the illusion that they are such), the relations between the two metals in bullion are constantly misunderstood. As silver has depreciated in the bullion market of London, in consequence of Germany and the nations of the Latin Union having stopped free coinage, objections have been raised by scientists, bankers, and capitalists to its remonetization by the United States. No sufficient reasons have been advanced yet, although, from one point of view, good objections may be urged. It is impossible to point out the true objections upon the mercantile theory of bullion values being the same as money values. They can be correctly explained only upon the theory advanced in this work. If silver, when remonetized in the United States, were, in its character of money, to be regarded as a mercantile article in the same sense with silver bullion, there can be no rational objection whatever to its remonetization by the United States, on the part of bond-holders and bankers, because remonetization in that sense means simply using the metal at its bullion value reckoned in gold, and gold at its bullion value reckoned in silver, if it will stay in the coun-

try so that it can be used. But why will it not stay, if silver is remonetized, and both, in their character of money, have a mercantile value like other commodities? They must certainly both stay, if one stays, provided both have mercantile value. There will certainly be an effective demand in the sense in which that term is used by writers, if the mint offers to coin both freely. Legislation cannot fix the value of either alone, or of each relative to the other, in exchanges of the two metals, because that cannot be accomplished as to commodities, even by imperial power. There can be no objection, then, upon the mercantile theory to the remonetization, because the commodity silver will be worth as much in the market of the United States, reckoned in commodities and therefore in gold, as it will be in London, and no more. But silver has fallen in London from a point where fifteen and one half pounds of it were worth one pound of gold, to a point where seventeen and three fourths to seventeen and one half pounds are worth one pound of gold. It is still claimed that the United States will be defrauding their creditors by free remonetization at the rate of sixteen pounds of silver for one of gold, which, we will suppose, will advance silver in price as bullion, so as to make sixteen and one half pounds of it in London worth one pound of gold, — the United States allowing it to be coined at the former rate, or buying all the bullion that offers at market price and coining it themselves. But how can the United States coin at that rate, if it comes short by one half pound of silver for every sixteen pounds coined, or say three per cent. of the relative barter values of the two metals in London? It is impossible for two commodities to be exchanged without valuing each in the other by units, and the valuing units stand, as between equal weights of the two metals, thirty-three for gold and two for silver, after remonetization by the United States has produced its full and final effect. This makes no difference upon the mercantile theory, because the United States do not possess imperial power, and if they do, they cannot compel people to exchange commodities at rates they choose to dictate. But it is said that something of this kind

will occur through the remonetization of silver, and let us assume that loss will ensue in some way, to public as well as to private creditors and money holders, by lowering the "standard." There is but one way of lowering the standard conceivable, and that is by taking the risk of raising the rate of barter exchange between the metallic commodities silver and gold in London, in favor of the former, to the figures of the rate of barter exchange, at which they may coin, say 16 and 1. If the two barter rates agree, they have harmed nobody, and nobody can complain. But if they fall short by one half pound on every sixteen pounds of silver, or say three per cent., the gold coin will all leave the silver in the United States, as silver at one time left the gold, not because the silver coin which takes its place is a commodity in such abundance as to produce an inflation of prices, and not because one unit dollar of gold is worth more in the United States than one unit dollar of silver in purchasing power, but because the barter rate of exchange between the two metals in the United States is at variance with that of the commercial world in London, and the gold coin can be exported and bartered for silver there, to import and make silver dollars of equal purchasing power with the departing gold ones, with a profit of three per cent. The wrong, then, if there be one, lies, not in changing the value of a commodity, which is impossible, but in not coining at the barter rates of exchange between silver and gold in the commercial world's markets, and making creditors who wish to buy in foreign markets pay the difference before they can use their money. The wrong has no direct relation to the exchangeable value of the money unit at home in point of purchasing power. The United States long since indirectly demonetized silver by undervaluation, which caused it to leave and gold to take its place; and a few years since it followed this up by direct demonetization, except for subsidiary uses. It has no right, therefore, by free coinage, to remonetize, unless it can and does make its silver dollar exchange at par for its gold dollar, by making their bullion weights in silver and gold harmonize with their relative bullion values.

The bullion in the unit is not the unit itself: it is the dollar, or the macoute, which is the unit, limited by and localized in two commodities brought together for exchange when in its first stage of development, but now limited by and localized in the metallic commodities. These constitute the commercial world's money, and the barter rate of exchange between them varies but little on each side of average. Dollar is one of the standard units, thus limited and localized in gold and silver. Standard, in the sense of a mercantile commodity of so many grains weight, has no existence but in a fallacy. The only standard possible is the standard unit called macoute, dollar, pound, or franc, having purchasing power in the abstract inversely with the increase, and directly with the decrease in the total number existing, and actual purchasing power inversely with the number used to make a particular purchase. But suppose silver to have been always in use in the United States, with free coinage, and never to have been demonetized by them, either directly or indirectly. Having issued a large amount of transferable undertakings in the shape of bonds, scattered all over the commercial world, has it the right to pay in silver its creditors who reside where silver is not in use, after demonetizations by other nations, which sink its bullion value as compared with gold, say ten per cent., unless it makes good the difference between its own barter rates and those of the commercial world as they may be at the time?

But before answering this question, it is necessary to define with more rigorous accuracy what bullion value is. Gold bullion and silver bullion are mercantile commodities, which are valued in each other for the principal use of manufacturing units of money, and the subordinate use of making plate, jewelry, etc.

The principal use controls the subordinate use, and therefore the bullion value arises chiefly from the quantity of metal coined, and subordinately from the quantity manufactured: as the annual supply of one metal increases, it becomes cheaper, and more of it goes into manufacture. The result must necessarily be, supposing both metals to be in

universal demand for coinage, a tendency to carry into, and to keep equal values of each in coin, and therefore equal values in plate, etc., the comparative cheapness, and larger mass of silver, causing relatively much more waste and loss of it than of gold. But as the principal use controls the subordinate use, how can the principal use itself be apportioned between the two metals, and upon what principle? That of relative quantities by weight, coined, because no other apportionment is possible. The intrinsic qualities of the metals, beyond the fact that both are entirely suitable for money, cannot be considered, because they have no relation to the use. The valuation, therefore, is of the simplest kind, because one of relative weight only, excluding the consideration of the complex questions of comparative utility which would arise in exchanging other commodities, and which did arise even with the savages, using the abstract and ideal units called *macoutes*. The relations between the two kinds of bullion are thus made plain. The demonetizations by Germany and the nations of the Latin Union, by stopping free coinage, have removed a large element of demand, and thus changed the relative bullion values by depreciating silver in barter value relatively to gold, and appreciating gold in barter value relatively to silver. The question about the right of the United States to pay its creditors in silver in the case last supposed, and at what rates, can now have an intelligent answer. The United States are under an implied guaranty of some sort: What is it? Is it the guaranty that they will pay a certain weight or quantity of silver for every bond of one thousand dollars they have issued? or is it that the purchasing power or value in exchange of the unit dollars they will deliver for their bonds shall not lose exchangeable value by loss arising from their own act, or that of any other government? If the former be their undertaking, then if money is an ordinary commodity they are not responsible for the depreciation, and may justly pay, by delivering the quantity of metal required to make one thousand silver dollars, in the shape of one thousand of those dollars coined at the old weights: they will

then deliver precisely what they agreed to deliver, according to the tenor of their bond. But if the commodity theory is unsound, the United States are bound by their implied guaranty to sustain the purchasing power of their dollar unit in behalf of creditors against the effect of their own acts, and that of all other governments, so far as actual loss can be demonstrated. This they are unquestionably bound to do, because otherwise they will force their citizens who are money-holders, and all creditors, who buy or pay in international markets to lose the difference between two barter rates of exchange. In other words, they are bound to do exactly what Germany and the nations of the Latin Union are doing.

But suppose free monetization of silver at the rate of sixteen pounds of silver to one of gold, and the price of silver bullion in London to rise in consequence to the rate of only sixteen and one half pounds of silver to one of gold, thus making silver dollars worth less than gold dollars, what will be the result?

It may be that for a considerable time the price of many articles of merchandise exported will not rise in proportion to this difference; but whether they do or not, a more or less arbitrary premium of exchange, founded on relative bullion values, will prevail; and the United States will be compelled to pay three per cent. premium on all the silver they deliver, unless they repudiate, because they must do it for all creditors, or none, inasmuch as all will claim it. The supposed national gain will be in the gain of relative barter value of silver, a matter of small importance compared with the inconveniences which will result. That the United States may remonetize provided they pay the difference in bullion values; or without the difference, if they in their remonetization put the bullion values at a point which they will reach and sustain in the bullion markets, is unquestionable. It is not the fact of recoinage which is wrong, but not putting the ratio of recoinage low enough. What the United States are bound to do is to maintain their standard unit dollar for the benefit of all creditors and money-holders

against their own acts, or those of other nations. Every nation having assumed the right to act as it may choose in relation to monetization and demonetization, each is bound to protect its own citizens, and all its creditors and money-holders. All this I have discussed fully in the chapter on the Redemption of Currency.

The sum of the matter in respect to bullion values of silver and gold is this: silver and gold have been the material employed by the commercial world from such remote antiquity that no historical records can inform us with even approximate probability, as a matter of history, when the use began, and whether the use of one metal preceded that of the other or not. Historical criticism, reasoning from plain matter of fact, if applied in this quarter of human development, would probably lead to the conclusion that the use of these and other metals began with commerce. But the earliest recorded instance of its use shows that it was employed as a unit of valuation, purchase, and payment, whatever the human idea arising out of the use might be. The shekels were weighed out by Abraham, by a well known standard of weight, precisely as miners would weigh out silver in their purchases if there were no mint, and as the miners of California weighed out gold. It is impossible to use any commodity as money in any other way; all commodities are sold in the same way. But because the metallic commodity is used, not to consume for the purpose of supplying actual personal wants, but to make such exchanges as will satisfy those wants, the commodity which supplies the material of money is, so far as this use is concerned, governed, not directly, but only indirectly and partially, by the laws governing the value of other commodities; and in point of science must be taken out of the list of commodities. Its exchangeable value as money, therefore, falls with its increase, and rises with its decrease in quantity by weight, whether one, two, or more metals are used. If two (silver and gold) are universally used, their relative values as bullion to coin money must on the whole be to each other as the respective quantities being on the average coined. This

is the primitive valuation by *macoutes*, which here become units of weight. It is merely an exchange of metallic commodities by valuing units of weight, as the condition precedent to making of them both, units of money for universal use in exchange. The last use is not the first use, but is the result of the first use. The latter use can only be carried into effect by means of the first. The first is the establishment of a rate of exchange between, and an actual exchange of, the two metals as the only possible method by which both can be used together as money. The commodity exchange must precede the use of both metals as money in universal exchange: it is impossible to use both without first establishing the relations which shall govern their joint use; and those relations are the relations of weight, because intrinsic qualities, if considered at all, would make the problem too complex for solution, and the adoption of some other kind of money absolutely unavoidable. But there is another element which precedes the solution of the problem, which, although very complex, requires no calculation, because it is always solving itself, by self-acting machinery. Gold and silver are wanted in the arts and in manufactures. Both are well adapted to certain uses, and there are some uses to which one goes more extensively than the other; but, on the whole, the extent of this use must be governed very much by relative increase and decrease in supply of each metal by weight. If, by way of illustration, the average product of silver be called 40 and that of gold 1, the larger mass and relative cheapness of silver would cause much more of it by weight to be used in the arts and in manufactures than of gold. This more extensive use, and comparative cheapness, would expose more of the silver than of gold to destructive agencies, and to loss. Hence, under an approximately universal use of both metals as money, as well as for the other uses named, the commodity or bullion values have of late averaged $15\frac{1}{2}$ and 1. Joint legislation, representing universal consent through universal remonetization of both metals, could declare that silver should be coined only when the commodity or barter values were 20 and 1. In that case

money would absorb all the silver which arts and manufactures would not take at that rate; but the effect would be to diminish the production of silver and disturb the ratios of metallic material going into use as money to the totals of the masses already coined. When the nature of money is understood by scientists themselves, a general remonetization will probably be urged; and in consonance with the commercial ideas of our time, and to avoid the great inconvenience of transporting and caring for treasure of such weight as silver, governments ought to receive it in storage and issue certificates. The decisive objection to fixing by universal legislation, following treaty, the rate at which silver shall be coined below its natural ratio is the disturbance of the metallic ratios of production of either metal to its total mass already in the shape of coin and being continually increased. If, without creating such disturbance, thirteen and one half pounds of silver could be carried into arts and manufactures, out of say the fifteen or fifteen and one half pounds which would be actually coined, in case of general remonetization of silver, it would be most desirable, but it would be impossible, because it would disturb the value or purchasing power of the units of value, purchase, and payment localized in and limited by the metal coined.

The bullion or commodity value of silver, reckoned in the commodity gold, in the London bullion market, has therefore not a direct but an indirect bearing upon the remonetization of silver by the United States. The real obligation by which the United States are as matter of fact bound is, not to refrain from monetizing silver because other nations have demonetized it, but to take no risk of maintaining the silver unit known as a dollar at the same purchasing power or value in exchange with their gold unit known also as a dollar. Their standard, like all other standards, is not a piece of gold, or a piece of silver, but a unit called dollar. If this were not so, it would be impossible for them to make one kind of dollar worth less than another kind. As matter of fact, however, they can make the silver dollar worth less than the gold dollar, and they can make the gold dollar worth less

than it has been at home and abroad by coining it with less gold. The obligation of the United States is, should they re-monetize silver, to do so at such rates as will make the silver dollar worth as much as the present gold dollar, and if they fall short of doing so, to recoin at reduced ratios for silver until they hit the true ratio; and, in order to do this, they ought to make sure of hitting the true ratio, by making it low enough to a reasonable certainty. But in carrying out this obligation they may make the ratio too low and send all the silver abroad. If, on the other hand, by recoining at 16 and 1 they still leave the commodity or bullion value of the silver in their silver dollar worth three per cent. less than the commodity value of the gold in their gold dollar, it may and undoubtedly will be the fact that for a long time the purchasing power of their silver dollar in exchange for labor and commodities at home will be worth approximately one hundred cents, while the commodity value of its bullion, as compared with that of the bullion of the departing gold dollar, will be as ninety-seven cents to one hundred cents. This difference will constitute a rate of bullion or commodity exchange which will be exacted and paid frequently without any full compensating effects to the payer. To produce such results (if the actors knew what would be the results of their action) might well be called monetary madness. Every government is bound to maintain the rate of exchange between the commodities used as money, and, if by reason of the acts of other governments it cannot do so, to interpose by legislation or to legislate in such a manner as to prevent it. This it can do only by stopping free coinage, as Germany and the nations of the Latin Union have done, still making the silver already coined to circulate as before, and gradually retiring it by exchanging it for gold as they are doing, or hope to be able to do; or as they possibly might do more rapidly by issuing from time to time government notes (perhaps redeemable in gold), and thus saving their silver from being precipitated on the bullion markets. The United States can, without creating any monetary disturbance, coin one hundred and fifty millions of silver, and allow it to circulate as "token money,"

as French silver by reason of this suspension of free coinage is now doing. This money would be here, as in France, as good as any other metallic money, except that it would lose, to a greater or less degree, the natural limitations imposed by the total quantity of metallic commodity when used in universal coinage. It is not so much a forced circulation that results from it, as a circulation in point of number of units in excess or defect of that which free coinage at the proper ratio would give. The United States could (possibly) make their token coins, redeemable in gold, circulate, but they certainly could make an equal amount of treasury notes so redeemable circulate, to supplement the supply of gold. The silver would entail a useless expense of six or eight millions per annum. To delay silver coinage until the commercial world is ready for it, and have found out the need of it, is the true policy, although the Latin Union and the United States, by combining to coin at 16, or perhaps $16\frac{1}{2}$ and 1, might carry up the bullion price high enough to meet these figures.

But why take up the load which Germany was the first to throw off when one hundred and fifty millions of treasury notes, redeemable in gold, will supplement the supply of gold, as I have before demonstrated, should any supplement be needed or supposed to be needed?

The demonstration shows that bullion values of silver and gold are values of commodities reckoned in each other by units of weight. Their use as money, which is paramount and controlling, determines the extent of their use as commodities in arts and manufactures; but before they can be used as money they must be weighed and passed as units of valuation, purchase, and payment. Their relative bullion valuations are the conditions precedent to using both of them for the purpose of weighing out the money unit: whether that unit be called by a name which indicates weight like the pound or one which does not is immaterial. The English money pound (although a pound is a unit of weight) has now no meaning as a mere unit of weight; it means a unit of money. The commodity value of gold and silver, and the

commodity mode of valuing them by comparison, necessarily antedates and precedes their use as money. The total mass of both silver and gold existing in coin everywhere; the total annual product, which is small compared with that mass; the total annual increase of commerce, which determines the additional number of units of the old standard required to make the annual additional exchanges required by that increase; the loss in purchasing power of gold and silver money by the annual extension of the use of perfectly convertible, imperfectly convertible, and inconvertible bank and government notes; and the artificial expansion of the circulation of the total of gold and silver money through deposit and discount banking, — reducing as it does the total mass required to effect the actual exchanges in any given city, town, place, or nation, while at the same time increasing the total exchanges of money by adding to those actual exchanges, which distribute commodities through real commerce, exchanges of money for labor and raw material, in excess of the former, equal to the total of bank debt, — are the principal causes which determine the total quantity of annual metallic product of silver and gold going into arts and manufactures, by making it cheaper or dearer relatively to other commodities. The variations in annual product between the two metals determine to a considerable extent the relative quantities of such metal thus annually disposed of.

After the termination of the late civil war in the United States, when the premium on gold and silver coin stood at fifteen, although its purchasing power as money had fallen since the commencement of the war to the amount of more than forty per cent., the metal contained in coin was worth more to manufacture, as a commodity, into plate and other articles, up to the extent of the demand, than into units of money which had but fifteen per cent. higher purchasing power than legal tender and bank notes. The exchangeable value of the metal in the shape of a unit dollar was no more than that of a unit legal tender or bank note, and the value of the unit thus controlled the value of the metal. That the metal in the unit gave the unit itself a premium

of 15, arose from peculiar local as well as ordinary external considerations. In France the average premium was small under large issues of inconvertible bank-notes. In the United States the metallic commodity in the coin lost commodity value, as compared with other commodities, in proportion to the loss of purchasing power of its units through the enormous increase, compared with the period immediately antedating the war, of all paper money units, which continued to have the same power to pay debts as gold. The loss of purchasing power of all the units, both paper and metallic, amounted to seventy-five per cent., through the increased circulation always given through deposit and discount banking to any total, either of metal or notes, over and above what it could have been without deposit and discount banking.

The demonetization of either metal, according to the extent of it, depreciates the commodity value of that metal directly; its unit value in the shape of coin, indirectly and ultimately. The late arrest of free coinage of silver by Germany, and afterwards, by way of defense, by the nations of the Latin Union, has depreciated the commodity value of silver. The depreciation is governed by the total of additional amounts of silver bullion thrown upon the markets in consequence by the demonetizing governments; by the consequent loss of demand on future production by those governments; by the quantities taken out of market to send in the shape of bullion or coin to the East; by the increased quantities going into manufacture through cheapening of commodity value; and by the necessary decrease of production in consequence. All these complex elements determine the total amount of gold and silver bullion, and the relative amounts of each kind of bullion, going into arts and manufactures. If gold and silver were material for money, alike everywhere, these elements would produce a harmonious result by mutual action and reaction, and maintain on the average equal amounts in value of each metal in the shape of coin, and therefore in a state of manufactured commodity. The total amount of each metal left after supply-

ing the demand for manufactured commodity would necessarily be to the other, in point of commodity value, inversely as the weights of the respective masses left; that is to say, each would be exactly equal to the other. If one increases or diminishes in mass in respect to the other, its total value is nevertheless not changed in the slightest: the total of each still continues to be one half of the total of both, because purchasing power as a whole cannot be changed by change of quantities in the material which limits the whole number of units.

There is no other mode of valuation possible for the purpose of determining the barter values of the materials used as coin in exchange. As either metal goes into manufactured commodity, however, the comparison between the two metals and the resulting valuation is complex, including not only relative quantities by weight, but relative use. If the product of silver averages forty pounds to one pound of gold, were neither metal of any use for manufacture other than money, values would be alike, pound for pound, even after deducting for relative increase of waste and loss in silver over gold through its larger relative mass. As this is not the case, however, and both metals are highly useful for such manufacture, the cheapness of silver as commodity, compared with gold as commodity, in excess of relative utility of gold for purposes other than those of money, carries relatively more of it than of gold to that use. This, and the greater relative waste and loss of silver, have brought the ratio of value between the two metals, under the almost general use of silver as money, to $15\frac{1}{2}$ and 1. This has been the *simple* ratio of weights of respective masses going into coin, these masses being the residuum remaining after the exhaustion of all the *complex* demands, working in the complex ratios before mentioned. This simple ratio, I repeat, results from the various complex elements determining the production of the whole quantity of both metals and the relative quantities of each metal going into arts and manufactures. Were the United States to limit the total coinage of silver at 16 ($15\frac{1}{2}$ would be better) to such a quantity as would still retain

a large amount of gold sufficient to make all public and private remittances abroad which might be needed, and sufficient to keep an amount of gold at home equal to all calls, there could be no objection. They might issue at a very useless expense one hundred and fifty, and possibly two hundred millions, which would not, as before stated, be as good as so many treasury notes. This would be equivalent to a like amount of newly mined gold in depreciating the unit dollar by increasing the number of units. But this is in effect only what England has done, and what the United States, Italy, Austria, and Russia have done. They have depreciated gold in purchasing power everywhere; but the result, though certain, was intangible. Wherein, then, lies the wrong in free remonetization of silver at 16 and 1? The relative purchasing power of silver, without treasury notes, in the United States, at 16 and 1, will probably be higher than that of gold with one hundred and fifty millions of outstanding treasury notes. The notes cause a general depreciation of all metallic money everywhere by an expansion of the units of money in point of number, as against existing creditors and existing money-holders everywhere. But this is only what the United States have already done to an enormously greater extent by their issues of inconvertible notes. The question, therefore, is very far from being one of inflation or expansion of prices, or contraction of prices. The United States would nominally retain gold, but would practically demonetize it by sending it all abroad through undervaluation of its relative exchangeable value as metallic commodity compared with silver bullion as metallic commodity. Being bound to maintain the purchasing power of both its metallic units in all markets where it pays debts, it must make the least valuable equal to the most valuable. The practical result would be a metallic or barter premium of exchange, amounting sometimes to more and sometimes to less than three per cent., if silver bullion rose in consequence of free remonetization at 16, to 16½ in London. This premium would be paid out of the external commerce, falling back on the production of the United States.

It would be paid to exported produce, to be charged back in part to and paid by produce not exported, producing great inconvenience, and perhaps a domestic exaction of a premium when not warranted ; a loss of debtors first, followed by a partial distribution of the loss. It might be thought better to follow up the resulting indirect demonetization of gold by a formal and legal one. But the same rate of exchange would continue after all the American gold had ceased to exist as coin, and there would be the same nominal difference between the unit of gold and silver, although the unit of gold could no longer be found actually in existence.

To reduce the purchasing power of their metallic units by the issue of paper in the home market is an act for which there is no mode of holding governments directly liable. The people suffer together from the resulting loss, and creditors most ; yet public necessity may demand it. But governments are required to maintain, in behalf of creditors, the purchasing power of all their metallic units of the same name on a par in the markets of the commercial world, for there creditors may be found. The whole liability of governments may be summed up in a few words. If all governments were to monetize both silver and gold freely, making all their coins of either metal of equal weights, and giving them the same name, they would be units of equal value, and therefore equal purchasing and paying power everywhere, and there would be no nominal difference of exchange to settle so long as this plan continued. But so long as governments continue to coin units of different weights, and to monetize and demonetize, and change the weights of their units at pleasure, a nominal rate of barter exchange between the respective quantities of bullion in their different units must result ; and should the United States monetize silver freely at the ratio of 16 and 1, and come short, by one half pound of silver for every sixteen coined, of hitting the rate of barter exchange between the two metals in London, this would create an artificial premium to be settled between the bullion in the silver dollar and the bullion in the gold dollar of three units out of every one hundred units of weight

of silver. This is the barter exchange between the commodities — between the bullion in the gold dollar and the bullion in the silver dollar. This rate of exchange between the metals as commodities to furnish material for the money unit antedates the actual use of the coin as money, and is absolutely necessary before the two can be used in foreign markets as money at all. The barter exchange between metals coined must be settled before the coins can be received. After the barter rate is fixed the exchange takes place, and not before. What the actual exchangeable value of any coined metals shall be, when they are used as money, and not bartered as commodities, is a matter of average as a whole, made up of the millions of different purchases made with them all over the world. Sometimes the local average may be reduced more than fifty per cent. by issues of irredeemable notes, as by the United States after the commencement of the late civil war. This is merely a local loss of purchasing power in the gold or silver coin, which must be carefully distinguished from the barter exchange value of the material of which the coins are made. Upon this principle, if the United States had, prior to the late civil war, placed the commodity or bullion value of silver relatively higher than that of gold, instead of making it, as they did, relatively lower than that of gold, the gold would have left, and silver would have been the only metallic money, and practically what is called "standard" in the United States, instead of gold. The public debt of the United States would then have been payable in silver as distinguished from gold, it might be supposed, as it now is supposed to be (where nothing is expressed to the contrary, either in the law or the bond) payable in gold as distinguished from silver. But were that so, could the United States have paid off the foreign as well as domestic holders of their debt at the old silver bullion rates at which they had coined their silver, notwithstanding the fact of the loss in barter exchange between silver bullion and gold bullion, on the part of silver in London, of ten to fifteen per cent. upon any just consideration of the law of nations?

Could the United States, in that case, have called upon their creditors to bear any loss resulting from the acts of Germany and the nations of the Latin Union in respect to silver, or would they be bound to bear the loss themselves? The principle is discussed in the chapter on the Redemption of Currency, but the answer must be, unquestionably, that the United States ought to stand by its implied guaranty and pledge, arising out of all the equities of the case, to make good the loss. If that be so, the objection to the remonetization of silver by the United States is not in the fact of monetization, but to any monetization which throws upon the public creditor and the private creditor in the commercial world's markets the loss resulting from the necessity of paying a barter exchange between the two metallic commodities used as money in the commercial world's markets. If the United States had never coined an ounce of gold, and no metal but silver, the loss to silver bullion resulting from the acts of Germany and the Latin Union would then require the former, in paying silver to creditors, to compare bullion rates between gold and silver, before those acts and since, and to pay the resulting barter difference, thus maintaining their implied pledge and guaranty. They could, as they did, depreciate the purchasing power of their gold and silver units forty per cent. at home by the issue of inconvertible legal tender notes, send abroad in consequence a large portion of their gold, and even silver, and the greater portion of their annual average of metal going into the mint for coinage, for more than fifteen years, depreciating the purchasing power of all metallic money in all markets in consequence; but they cannot, without an indemnity to the losers, pay their debts in the commercial world's markets, where their paper debt will not pay, without paying the barter exchange rates between the metal in the coin they offer and the metal in the coin used by their creditors. In the commercial world's markets they could not, even if there were no money in the world but silver, reduce the quantity of silver in their unit dollar to the prejudice of creditors, and they are bound to maintain in all

markets the barter rate of the silver in their silver unit. They must pay the rate of barter exchange between the quantity of silver in their unit since the reduction as compared with gold, if they pay with silver units.

But the case is not perfectly clear yet, without calling in aid principles established in another chapter, but not practically illustrated. Why is it impossible to establish any other relation but that of barter exchange by units of weight between gold and silver carried to the mint for coinage? Because in actual exchanges of all kinds, whether by barter or through units of complex valuation by civilized or savage men, a comparison of some kind must be made to enable the exchange to take place. If an ounce of silver (supposing the dollar to contain an ounce) were really bartered for sixty pounds of wheat, when a dollar is paid for it, as all writers on exchange affirm, the comparison must always be between all the uses to which the silver can be put and all the uses to which the wheat can be put. This comparison can be easily made between these two commodities and their respective weights, because there can be a comparison of uses: all this is entirely practicable, because there is a possibility of comparison. But when it comes to establishing a comparison for purposes of exchange between gold or silver and everything else ready for exchange in the world, this universal exchange can only take place by comparing all these things on the one hand, and gold and silver on the other hand, by those qualities which all possess, and that is divisibility into units. These units are necessarily abstract and ideal, because their relations can be mentally perceived in the abstract only. But the units of metal are limited by the commodity which contains them, and so with all the commodities exchanged. The units of money, however, being thus limited and abstract, continue so in their capacity of valuing, purchasing, and paying units; but the commodities going into actual use are apportioned according to the action and reaction of demand and supply by the purchaser. His units of purchase are limited, and must be apportioned to each commodity according to his wants. It is not the units

of money which control the buyer's actions, but his actions which control the apportionment of the units to different objects, as may suit his purposes. Hence the money unit continues a mere unit, because that is the only relation possible to be conceived between it and the units of all other commodities ; but the units of commodities are continually made practical realities through continual use. If they were only used to exchange for money, as money is universally used to exchange for them, and for no other purpose, the exchanges as a whole could only be conceived of as units constantly being exchanged for each other. This explains why prices of bullion as a commodity do not determine purchasing power of bullion as units of money, or the purchasing power of convertible or inconvertible bank or government debt, whatever form they may assume directly ; but only indirectly, as, after longer or shorter time has elapsed, the changes in the rates of barter exchange between the metals may here, there, or everywhere increase the number of money units which the forces existing in human power and will may put in circulation. The barter exchange between metals, being stated with mathematical exactness, can be made with equal exactness ; but the exchange between the metals and all other commodities is made up of a series of exchanges practically infinite. If all the exchanges of each commodity for a definite period could be obtained, and an average struck between them, it would give the average exchangeable value of that commodity. The first rate of exchange is easily ascertained, the second cannot be.

The United States, by maintaining a circulation of one hundred and fifty millions of legal tenders, can cause a greater expansion of units of dollars, and therefore of all money, than by free coinage of silver at 16. There would be in the latter case a large influx of silver, and for a time local excess of it, but ultimately what is called "contraction" would be greater under the silver than under the legal tender notes. From this theory of bullion values and money values thus developed by analysis, the remarks in the second chapter upon the common theory as to the manner in which

banking reserve ought to be kept — that it should vary as bank debt varies, instead of forcing bank debt to vary with itself, and also upon the theory of those who urge the abandonment of metal altogether, and the issue of inconvertible notes by government, are fully sustained. If bank reserve, although gold, varies, as it may be made to vary by bank managers, there is no metallic limitation to the units of bank debt, which are used by depositors to move the units of gold in the reserve: if government can issue inconvertible notes at pleasure, there is the same want of limitation. It is a question of the extent only of maximum and minimum variation in prices, and the figures of average prices; the units of money being moved in the reserve in the same way in both cases. The only limitation of expansion in either case is a commercial crisis, because it is the only limitation possible, as was seen in 1857 under convertible, and in 1873 under inconvertible, currency. It is impossible to understand this last proposition without keeping fully in view the difference between bullion values and money values. Gold and silver in the reserve are not bullion, because they are not metallic commodity, but money. They count units only with the units of bank debt. Ten pounds or dollars in gold and silver in the reserve are worth no more, and count no more, than ten pounds or dollars in the shape of debt due from the bank over and above reserve, or, in other words, the credit held by depositors over and above reserve. It is impossible to distinguish the one from the other in the reserve: all the units are owned indiscriminately, without distinction between them, by depositors, according to the state of their several accounts. To allow the debt units to vary by means of unlimited loans, progressively in advance of the metallic units, is to make the reserve vary as bank debt varies: it is to make gold in the reserve vary, not as gold varies in France according to actual commerce, which is the actual exchange of gold for commodities only, but as bank debt varies, or, looking, as we ought, at results, as production, increasing with bank debt, varies. On the other hand, to make bank debt vary as gold varies in the reserve, is to make it

vary as gold varies in France, or, in other words, with actual commerce, and not the production which, by feeding it without limitation, is allowed to proceed on to overproduction. National coins, outside of the nation, are bartered or compared as bullion with the bullion in the coins of the nation whither they may be sent. If silver were alone material for coin, the barter valuation would be weight against weight: gold and silver being used, it is weight against weight, *minus* or *plus* the units to be deducted or added. *Here*, money as bullion is commodity; *there*, in the reserve it is a series of units.

CHAPTER XVI.

OF LABOR AS A MEASURE OF VALUE: DIVISION OF LABOR, AND ITS INCREASING EFFICIENCY.

THAT labor is not the measure of values, either generally or particularly, is a corollary necessarily resulting from the propositions already established. It is not true as a cause, nor is it true in any just sense as an effect. The idea that it is a measure of values as a cause, as expounded by Adam Smith and others, must have occurred through the logical necessity of finding some method of valuing in order to exchange commodities; for in what way could labor be a measure but by the use of units of labor, either as furnishing units of time during which the labor lasted or units of results in the shape of commodities. The unit of time could only be used upon the express or implied assumption that it would produce on the average results of equal value, so that after all we must eliminate the unit of time and look only to the unit of results. Thus we are carried back to the old valuation of commodities by units, or African macoutes, in which all the complex considerations of comparative utility and quantity, as estimated by the actors in all exchanges, are to be considered. It is impossible, therefore, that labor can be a measure except in its results, as estimated by those who exchange. This makes the abstract and ideal unit of valuation by commodities a necessity, and the localization and limitation of the unit a necessary result in the progress of human development, as stated in the first chapter of this work. Values are determined by the action and reaction of demand and supply; demand including not only the desire founded on the want, whether natural, or more or less arti-

ficial, but the ability to supply it by having something to give in exchange for that which will satisfy it.

If the abstract doctrine or proposition of M. J. B. Say and his followers were practically true, the result would be perfect harmony of production : there might be too little of any one article produced at times relatively to others, but there never could be too much. But the production, commerce, and business of the whole commercial world are not a mere abstraction to be considered without any reference to the actors who are the cause of them. The commercial world is not a huge machine with a balance wheel, to be regarded solely by itself : the movements in it are not mere matters of machinery, but of persons who differ greatly from ordinary machinery. The foundation of all commerce is to supply human wants according to the scale of development attained and attainable. Men must have the absolute necessities of life as the inexorable condition precedent of their obtaining those which result from civilization : the former vary in kind and amount comparatively little ; the other may vary much. The former, as already shown, cannot be overproduced ; the latter may be through the increased and constantly increasing division of labor, but much more by its constantly increasing efficiency.

But if the latter can be increased in this manner to such an extent as to produce relative excess on the part of all of them, how can the producers exchange with each other, maintain commerce, and supply all their wants ? They cannot : they must exchange with the producer of absolute necessities first of all, and then they can exchange with each other and proceed in their production, subject always to this condition. What is absolute must control what is relative. In this manner the action and reaction of supply and demand will, if nothing artificially disturbs it, maintain an equilibrium of production, no matter how complete the division of the labor which supplies relative necessities, or how extensive the improvements in machinery and processes devoted to that purpose. If it were not so this division of labor and these improvements would become a greater and

greater curse to the human race as they proceed ; whereas the contrary would seem to be the fact, from the results they have hitherto produced on the whole, with the exception of the continual disturbances in production, labor, and commerce.

If these are the results of the increased and increasing division of labor, and its efficiency, through the causes before mentioned, it is a matter of grave doubt, whether they are not, in point of fact, to be deplored, as producing more suffering than comfort. One thing is certain, that if it be so a large number of the laborers must be sent back to the plow, because they can be spared ; and could the surplus heretofore employed in the production of relative be at once comfortably settled in the production of absolute necessities, this would be the remedy. But the true remedy is, to allow the natural forces of supply and demand to always keep the right number at the plow, instead of first taking them away and afterwards sending them back.

This remedy, so far as attainable, has already been stated. The mischief lies in the use of credit — not ordinary mercantile credit, which would only carry up the price of those necessities of life bought on credit to sustain the producer of relative necessities while producing his overstock, but a kind of credit which, while raising the price of the absolute necessities in the shape of grain, provisions, etc., very much, also raises the price of the relative necessities sold, in spite of the natural tendency of all overstock to fall. This operation is performed, and can by no possibility be performed otherwise than by money, through its increased circulation by means of loans. That excess in the production of the relative necessities does periodically appear is now unquestioned and unquestionable. Relative excess is followed unavoidably by relative defect. The reality existing under the veil of money is borrowing by one set of producers of another set to support themselves, while producing overstock in the guise of a loan of money. This real result is what is found to be the fact, after the crisis comes, whether the money has been borrowed in bank-notes (whether convertible or in-

convertible) or in gold or silver, because all are as money units of valuation, purchase, and payment, and not mercantile commodity. All this results in a borrowing on producers' and merchants' credit, guaranteed by the bankers who deal in the extra circulation of money, and it amounts in its effects to a guaranty of the producers and merchants in the final exchanges of commodities. The constant variation of prices which follows is a practical demonstration of itself that labor is not the measure of values.

It is high time to have a real science of production and exchange founded on facts, and not on abstract theories, which are only remotely and subjectively true. If merchants, bankers, manufacturers, and intelligent and skilled laborers, have not yet found out the fact that all men who have farms of average size and productiveness, with average management, are reasonably sure of a living, while they themselves are not, it is useless to try to convince them, and yet the science still taught is that there can be no overproduction, agreeably to M. Say's argument. If none but ordinary credit were in use; if the credit banks deal in were really the sale of a direct guaranty of loans of absolute necessities, the pledge given them being overstock and capital behind it, all this sort of science would be harmless. It would still be false, but the rectification of any line of overproduction within short periods, by the base line of agricultural production, would approximate to that perfect harmony of production which they teach. But because what they call ordinary credit is really the selling by banks, not of a direct but indirect guaranty by means of the use of depositors' money in the reserve, to cause this very overproduction, which is concealed by the expansion of circulation, and consequently of general prices, until the overstock breaks down and is forced upon the market, the abstract theory is pernicious in its effects, because it hinders the investigation and application of remedies. It is not to be supposed that any perfect remedy can be applied. National habits will break out in spite of attempted remedies, but a mitigation is undoubtedly practicable.

CHAPTER XVII.

BANK-NOTE-REDEMPTION RESERVE AND BANKING RESERVE; THEIR RATIO TO BANK DEBT, AND THE PROPER PLACE OF KEEPING THE RESERVE OF EACH KIND.

BANKING RESERVE is a misnomer, because it implies that banks do not use their reserve except occasionally; whereas it has been demonstrated in the foregoing chapters that both they and their depositors use it altogether, because they have nothing else to use. The actual deposits of a country, together with all the money in the hands of money-holders, who keep their own money, form a series of reserves constituting all the money in the country, — deposits, aside from and in the absence of bank loans, differing from other reserves in the fact that they are, in Great Britain as well as in the United States, a consolidation of one half, more or less, of all the money reserves in each country in point of volume, in a series of banks, — these several consolidations being equivalent in effect to one grand consolidation in a single bank with branches. This consolidation, after the inauguration of bank loans, sustains all bank loans, and therefore a like amount of production on credit; while, through deposit and redeposit, it enables banks, with a varying reserve, to put in circulation, as the agents of depositors, and chiefly through the instrumentality of checks, precisely as much money as if there were a dollar or pound of metal for every dollar or pound in the shape of what are called deposits, *plus* the total of bank debt over and above reserve.¹

¹ A deposit total of 100 millions of pounds, with 25 per cent. of reserve is equal to 100 millions — 25 millions + 100 millions = 175 millions of pounds in the hands of holders, in productive efficiency. The 25 millions are erroneously called reserve, and this misnomer has done more than anything else to pass cur-

There is no assignable limit but a crisis to the extent to which the total reserve may continue to lose metal; or bank-notes be carried into and kept in circulation through payments for labor, raw material, profits, interest, and charges, but a crisis. Therefore it is not surprising that Mr. Price should ask, in his "Principles of Currency," why so much useless metal is kept in the reserve, since it is much more than equal to supplying all the calls upon it. I have shown where the real fault is, in the chapter on Banking in England under the Bank Act of 1844. It is because the units of bank debt, or of depositors' credit over and above reserve, control the units of metal, and notes based on metal, in the reserve, instead of the latter controlling the former. The meaning of this, translated into the proper language of the forces which control the movements of all these units of money, is, that bank loans, aside and non-existent, the total of deposits would be the total of money received by depositors for commodities exchanged for consumption. Introduce bank loans, and the volume of loans, to whatever extent carried, shows the amount of money from the reserve put in circulation by the bank or banks, not to exchange commodities for consumption, but to enable producers to produce commodities to the extent of the total volume of loans in excess of those exchanges. Bank loans arose originally from

rent the fallacy that banks deal in debt. It is not reserve, except in the sense that it is so much out of depositors' money, which banks have not used. It is in this case equal to 100 millions of pounds in the pockets of depositors, because it can distribute for consumption an equal amount of commodities. It is equal to 100 millions circulated into the hands of its owners for commodities consumed, while the bank debt over and above reserve is equal to a total of like amount in metal and bank-notes circulated into the hands of holders for so many commodities produced, but not consumed. All this enormous complexity of development in the uses and the effects of money given an additional circulation corresponding to the production of commodities through bank loans over and above the natural circulation which distributes them, arises from the fact I have demonstrated, — that money is not a commodity, but a series of units limited in number by the material of which they are made, so far as the precious metals are concerned. If money were a commodity in reality, no such complexity could exist. The general supposition, that it is a commodity, makes every one believe that he understands the laws of money, and that they are really a very simple affair.

the deposit of metal or notes. Hence, to fix bank reserve in a definite ratio to liabilities, or, in other words, to keep say twenty-five per cent. in reserve, is to fix the point at which the use of the money of depositors to produce on credit, in excess of actual exchanges for consumption, shall stop. The twenty-five per cent. in reserve always demonstrates that exactly seventy-five per cent. of the money of depositors has been used to sustain production on credit, in excess of actual exchanges, and is equivalent to so much additional circulation, while the twenty-five per cent. of money causes the same amount of exchanges to take place as one hundred per cent. could do if kept in their own hands by depositors.

Bank-notes issued by banks of issue, in the absence of banks of deposit and discount, and perfectly convertible, maintain a nearly even ratio with metal, and are therefore limited by the metal and distributed with the metal as in Scotland in Adam Smith's time. The banks which issue them cannot maintain a circulation independent of that given them by their customers who borrow them. If A. borrows ten thousand pounds of a bank of issue in the absence of all deposit and discount banking, he gives his note or bill for the bank-notes less discount, and pays the notes out for labor and raw material. If the bank keeps this amount of notes in circulation by loaning notes as fast as it redeems, and no faster (and it can do it no faster without increasing reserve in proportion), the notes, as before shown, take the place of so much metal, and can be and are used, either to exchange commodities actually produced and consumed, or to pay for labor and raw material to produce commodities to fill the void created by consumption, as I have before shown to be the case with metal in the shape of coin. They cannot be used in the way of loan by banks to other customers, while the borrowers and others to whom they have paid them out are using them, either to exchange commodities, or pay for labor and raw material. They have passed entirely from the control of the banks, and remain in other hands until the banks are called upon to redeem them;

and then the banks can only use them or an equal amount of other notes by increasing their reserve to what it was before and reissuing. But establish deposit banking, and let one half of all the money in the country in the shape of metal and notes be deposited, and the banks can lock up seventy-five per cent. of all the metal and notes and make all their payments on depositors' checks out of the twenty-five per cent. This they are enabled to do in consequence of the continual stream of deposits which balances that of payments (the two streams being on short averages equal), while the same number of exchanges of commodities and payments for labor and raw material by purchases in ordinary course, and through loans made by depositors and all other persons, takes place, as if the seventy-five per cent. of metal and notes had not been locked up. Hence there is, in consequence of the locking up merely, no expansion of the circulation of money above the natural volume arising from the distribution of commodities for consumption, and the supply, through production, of the void created thereby. But the banks can go still farther in locking up money. They can make their reserve (the money not locked up) twenty per cent. of the whole volume of deposits to-day, twenty-one per cent. to-morrow, nineteen per cent. the next day, twenty-two per cent. the next day, and eighteen per cent. the day following. They can continue to vary the reserve daily, and probably carry it as low as fifteen, perhaps ten, and possibly five per cent., whether they loan or not. They can do this because the money in the reserve paid out is continually made up by money paid in. Prices remain as steady as before, because the same amount of circulation of money goes on as before. All this happens because the metal, as money, is a commodity of conventional value, and therefore a series of units of valuing, purchasing, and paying power limited in number by the metallic commodity, and in their circulation by commodities exchanged, and loans and purchases are made only by depositors. Now develop bank loans, by loaning all the metal and notes that can be loaned, and a large portion of the metal will leave the

country, and a large portion of the notes, if strictly convertible, will be retired, because they are no more necessary to carry on the exchanges of commodities for consumption than they were while locked up. But the departing metal and notes will now be represented by an equal amount of bank debt which will not remain equal long, but will gradually increase in volume over and above reserve. It will be varying from day to day upward, until, as every man who has observed the phenomena of banking knows, a banking and commercial crisis comes as it came in 1857 in the United States, when it will decrease in volume corresponding to its former increase. For several years before 1857, the volume of loans, and therefore of deposits, was continually rising, but after the crisis of 1857 it fell as much as it had risen before.

Now the analysis in various forms in the preceding chapters shows, if, in order to simplify the case for the reader, we suppose all deposit and discount banks consolidated into one bank with branches, that as fast as the goods produced on credit by the aid of bank loans are sold for cash to one who does not borrow of the bank to obtain it, and whether it be in the shape of metal, notes, or a bank deposit, the ratio of bank reserve to bank debt is increased in proportion to the extent of the purchase; for if the buyer borrows of the bank to make it, he merely takes the place of the seller who also owes the bank, and who thus pays his debt; and the total of bank loans, and therefore of bank debt, thus remains the same as before, if the seller sells at original cost. If the seller sells at a profit, however, beside being reimbursed for interest, charges for transportation, insurance, and other expenses he may have paid, deposits are actually increased by these items, which constitute a new production in value, added to the goods. The ratio of bank reserve to bank debt is left the same as before, in the first case. It is diminished, in the second case, through the increase of the total of bank debt over and above reserve, by the items of profit, interest, charges for transportation, insurance, etc., which went to increase the amount of the second loan over and above the first whose place it took.

It is a mistake, then, to affirm, as Mr. Bonamy Price and other writers do, that deposits in the shape of bank debt arise from the sale of goods. They arise from the production of goods and the increased value, which is also the result of increased production, accruing to them in their progress towards a market. Again, these writers assert, that while sales of commodities give rise to deposits which are bank debt, there is, by the instrumentality of checks and the clearing-house, a set-off or balancing of debts, as in the case of tradesmen. This is true as respects the balancing or set-off, as I have stated in previous chapters, and the process is apparently but a set-off, with a resulting balance or balances paid by check, without the removal of a single coin; and therefore, if there were not a single coin in the reserve, the result would be the same. I have, therefore, in some of the preceding chapters, called deposits over and above reserve, units of bank debt, or bank credit, which by their increase and decrease seem to take the place of so much money. But rigorous analysis requires us to look at what is going on behind these movements in bank, and we discover that the balancing of debts, aside from the items of profit, interest, etc., which go by way of increased production to increase the total of deposits, gives rise to no exchange of commodities, but merely transfers a commodity by sale to a party who assumes the place in bank of the seller. There is no real commerce in the case, because there is no exchange of commodities. But if the goods are sold for cash not borrowed, there is real commerce, because there has been an exchange of commodities, and bank debt over and above reserve is diminished to the extent of the sale if payment is made by check; if made with metal or bank-notes, which go into reserve, bank debt, over and above reserve, is diminished by the same amount. The two payments are in substance the same, because either of them carries deposits back the same distance towards the point where the total of deposits and the total of reserve would coincide, — the point at which production on credit, by the aid of bank loans, would be balanced by the exchanges leading to consumption. I have

shown that well-managed banks of issue, in the absence of deposit and discount banking, regulate their own metallic reserve by what may be called, by way of illustration, self-acting machinery, thus keeping it at an even average; but it is totally different with deposit and discount banking, because the reserve varies upwards for a time, and then varies downwards for a time, and so on in endless cycles. The consequence is, as before shown in previous chapters, that redemptions of notes are prevented by depositing them, and their volume is thus forced out of its definite relation to any metallic reserve. Even if bank-notes were constantly redeemed in metal, under deposit and discount banking, it would make little difference, because the circulation of the metal itself is not regulated; which means, in the language of money, that its artificial circulation, through bank loans, over and above its natural circulation, is not arrested always at one definite point; and, in the language of commerce, which stands behind money, that the exchanges of commodities for consumption are not made to take place as fast as production, after production on credit has reached a fixed point. But it is said that banks deal only in debt except, perhaps, the small current of money which is actually paid out. This is utterly false under a circulation of metal, or metal and notes.

In the chapter on Banking in England, I called the credit standing to the account of depositors, units of credit, which control the units of metal. What are these units of credit? They are units of bank debt due depositors over and above reserve, arising from so much production on credit by the aid of bank loans. They have added seventy-five, or perhaps, in England, eighty-five per cent. to the efficient total of money. They are not the cause, but the result, of production on credit. They (the total of bank debt over and above reserve) are equivalent in effect to precisely an equal amount of metal and notes, as powers to put in circulation in payment for labor, raw material, and commodities, the same amount of money, which could be circulated, if an equal amount in bank-notes or metal were in the hands of those

who draw the checks. It is an expansion of money equal to the expansion in the volume of goods produced and on hand in excess of an actual market. There are no limits but a crisis to the progressive expansion of circulation followed by contraction, as production progressively expands and contracts, in endless cycles. Therefore I affirmed with truth, in the chapter on Banking in England, that the units of metal in the reserve do not control the units of bank credit (resulting from production on credit), but the latter control the former, and so a large portion of the benefit which ought, upon a true theory of banking, to come from the limitations of a metallic banking reserve made up of metal and notes covered by metal which has been paid into the bank, *solely in consequence of a like amount of goods exchanged for consumption*, is lost. It is an utter impossibility for a bank — to speak with rigorous accuracy — to deal in anything which it has not received: it deals and can deal only in what has been deposited in it, and no debt was ever deposited, and no debt ever could be deposited, except in a figurative sense, in a bank; and so far as I have intimated to the contrary, I have adopted for the moment the common theory in order to explain, upon that theory, some of the phenomena of banking. If A. owes B., if B. owes C., if C. owes D., and D. owes A. one hundred pounds, the debts can be balanced or canceled by mutual agreement, without a single pound being paid out; but does this prove that no money has ever passed between them? A large portion of debts resulting from loans outside of banks, if duly registered, and if the parties could be brought together, could be thus balanced. If there were no banks of deposit and discount in England, and a bank of deposit were established, without the power of loaning, to receive say one half of all the money in the kingdom, and seventy-five per cent. of it were permanently locked up, leaving only twenty-five per cent. to make all the exchanges, the stream of coin and bank-notes going monthly into the reserve of twenty-five per cent. would average with the stream going out monthly. As production increased over consumption, payments for labor and raw material would increase, and the

outward stream would be the largest, while, as consumption increased over production, the payments into the reserve for commodities consumed would exceed the payments out for labor and raw material and accrued profits, interest, charges, etc., on sales, out of the reserve. In a comparative state of harmony between production and consumption, the difference between the two streams would be small, and therefore, with the exception of this difference, we may suppose that one stream could be set off against the other, and the record of the set-off would appear on the books of the bank. Could this bank be said to deal in its own debts due depositors for their deposits? Clearly not; and the same may be said of all banks, where the payment of bank-notes or coin is saved by clearing. It has the appearance, perhaps, of a dealing in debt, but the appearance is deceptive. It is as impossible for a bank to deal in bank debt except in the sense that bank-notes are bank debt, where metal and bank-notes constitute the circulation, as for the shadow of the bank building, in which the bank carries on business, to be the bank building itself.¹ A bank deals only in what is actually deposited in it, and what is actually deposited in it is coin and bank-notes. All else that goes on in a bank is chiefly debiting, crediting, and registering, so far as bank books are concerned. This is not the movement of money itself, but only a register of the movement. If this were not so, not only would the reserve be entirely non-existent, but there would be no circulation of bank-notes and metal from which alone the reserve is supplied. Every banker knows that when his reserve is exhausted, his power of banking is exhausted. How can there be but one opinion upon *that*

¹ Bank debt by book *might* take the place of bank-notes, by credits entered to borrowers on the books, to be transferred by check, instead of issuing bank-notes. This would only be the equivalent for equal amounts in bank-notes, and if loans were confined to such credits with a fixed ratio of metallic reserve, it would be equivalent to the issue of like amounts in convertible bank-notes; *deposits without bank-notes* would be the result of actual commerce, and the deposits would all be made by checks. But introduce bank loans and we should have the same results as where metal and bank-notes constitute the circulation.

point? But if this be so, the only possible use of the reserve lies in actually using it; that is, in *always* receiving money into it, when the bank receives at all, and in paying money out of it, whenever the bank makes any payment at all. Why, then, did I say that Mr. Bonamy Price was entitled to ask the question, why so much metal was kept in the reserve of the Bank of England? Because, following his example, I would ask the same question myself: it is a shrewd and sagacious question, and implies vastly more than it expresses. So long as the metal in the reserve is much more than sufficient to supply the excess of volume of the outgoing stream above that of the ingoing stream of metal, and while the currents of both are controlled by the production on credit going on, instead of the real commerce which exchanges commodities for consumption, the surplus coin, over and above a sufficiency to supply the outgoing stream such as it is, might as well be sold to pile up in the treasury or some other place, as to remain where it is. Mr. Price might ask his question for reasons other than these, but it is certainly a question in the right direction.

What is the remedy for all this; or is there no remedy? Either to abandon discount banking, I answer, or by some means, if possible, fix a definite point below which banking reserve in the shape of metal shall not go. If this be possible at all, it must come through the national banks.

The general government can require the national banks to keep a metallic reserve of fifteen per cent. against bank-note circulation, increasing it annually by one per cent. until it reaches twenty per cent.; and a metallic reserve of fifteen per cent. against deposits, to be increased in like manner until it reaches twenty per cent., and then to be increased gradually to twenty-five per cent. if required. A sufficient tax might be imposed on all private banks not keeping the same rate of reserve, to compel them to keep it, or abandon banking. The reserve of the latter banks might be kept either in their own vaults or with national banks, and possibly in time all private banking might be abolished and turned over to national banks, under the authority of proper constitutional amendments.

But a more practical plan would appear, if the national banks were fostered and sustained and relieved of the barbarous taxation under which they are suffering: the greater part of the business of banking could be transferred to the national banks, and the following scheme for the location of the reserve and its conversion, as respects bank-note reserve, into a collateral security for note circulation, may be worthy of consideration. Let the general government establish a bureau of bank-note redemption, attached to the sub-treasury in New York city. Let an account be opened with each bank and a deposit of fifteen per cent. in the bureau required by law. As soon as the reserve of any bank is reduced ten per cent. on its total, that is to say from fifteen per cent. of its outstanding notes to thirteen and one half per cent., let the bureau be required to notify the correspondent bank in New York, which keeps the deposit account of the bank whose reserve is thus reduced, and, failing such correspondent, the bank itself. If the reserve is not made good by a fixed time, let the securities of the bank be sold to an extent sufficient to cover the deficiency. Whenever the reserve is made good, if made good before such sale takes place, let the redeemed notes be returned to the proper bank. In this way, total bank reserve for the redemption of bank-notes will be kept in definite ratio with the total volume of bank-notes, while the whole reserve will be increased annually one per cent. for five years. For the convenience of note-holders, and to make the notes exchangeable for metal everywhere, let all sub-treasuries be required to give metal for the notes to the extent of their means; forwarding the notes they receive for redemption to the bureau; the metal received on redemption being in that case immediately deposited in the sub-treasury in New York city. The metallic reserve of fifteen per cent. against deposits, to be increased in like manner annually one per cent. for five years, might be kept either in the vaults of the banks or in the vaults of their correspondent banks at commercial centres, or in both; and it would probably be kept mostly in the latter.

In this way and by this plan, if the national banks hold

three fourths of all the deposits in the country, an approximation will be gained towards that point where real commerce will balance all production on credit.

This scheme has been suggested in another chapter, but I have set it forth here in detail. By being allowed to make their metallic reserve for the redemption of bank-notes a part of the collateral security for notes, releasing to that extent the government debt held by the United States for that purpose, the banks will be compensated for the expense of keeping so large a reserve against deposits.

CHAPTER XVIII.

THE POLICY OF EXCLUDING SMALL NOTES CONSIDERED :
ON A RETURN TO CONVERTIBILITY, OUGHT ALL BANK-
NOTES UNDER FIVE DOLLARS TO GO OUT OF USE ?

THE answer to this question depends entirely upon the answer to another : Is it possible either to regulate banking reserves themselves directly, or through a central redemption of bank-notes, indirectly ? If regulation by either mode is possible, and is also accomplished, then the exclusion of bank-notes of five dollars and under is unimportant. But why not a regulation of itself, independently of all others ? Because, upon the principles already demonstrated, the supposed contraction and consequent steadiness of prices, through the exclusion of such notes, not only could, but inevitably would, be overcome by the expansion of loans, and consequent diminution of banking reserve. The effect would be precisely of the same nature, so far as it would go, as that of the English Bank Act of 1844. It would not change the ratio of variation in prices, but only the maximum and minimum range of prices ; so far it would be beneficial. But if banking reserve is to be regulated, if at all, by the state legislatures only, the measure will be salutary, says a bullionist. This, I answer, would be a hopeless undertaking, and if accomplished the small notes would be harmless. But can it not be accomplished with a huge national bank of two hundred and fifty, three hundred, or it may be five hundred millions ? I am compelled to answer that it cannot. The old United States Bank answered as a regulator to some considerable extent in its day, while under the original charter, because the state banks it regulated were banks of issue. The fact that it was a bank of issue itself did not make it

a regulator, but rather the contrary. Its great capital, however, and its management, more or less directed to that end, made it to some extent a regulator, notwithstanding its own issues. Now, however, the right of the state banks to issue notes has been virtually taken from them by the tax of ten per cent. upon their circulation. If that tax is to continue, and if, as the plan of a large national bank assumes, the present national banks are to be wound up, there will be no banks of issue to be regulated; and it is utterly impossible at present to regulate common law banking, as already demonstrated, unless the private banks be, as they are not, banks of issue. Therefore, the plan of a large national bank necessarily assumes that on account of its vast money capital, holding as it would a large portion of the deposits of the country, there would be so little money capital left for other banks that they are entitled to no consideration in the case.

But is it possible to have such a bank? In order to have it, nearly all the money capital which would be found in banks, organized and private, would require consolidation. Would it be convenient, or would it indeed be possible, to establish branches of such a bank in the various towns and villages where national banks are now found? If possible, it would be so, simply because it would be possible to induce the present banks to enter into such an arrangement. This is at least very doubtful, and it is doubtful whether there could be in so large a bank sufficient guaranty of conservative management.

Such a plan, therefore, must be abandoned. A better plan would be to retain the present banks, or the greater part of them, and to consolidate the banking capital of New York, or as much of it as possible, with fixed minimum reserve for all national banks, and central redemption of bank-notes. Indeed, the notes might be redeemed in a bureau of redemption, or in this bank; each bank outside of the city being required to keep a fixed minimum reserve there of gold.

The national banks might retain their circulation, and legal tenders be retired, upon condition that the banks keep always at the chief commercial centre, at a redemption bureau, or other place, a fixed reserve of gold; thereby indi-

rectly, but to a large extent, regulating deposit reserve and bank loans, because the national banks would possess probably three quarters of all the banking capital.

With the benefit of the conservative effect of banking reserves thus regulated, the exclusion of all notes of five dollars and under would not be needed to counteract the expanding influences necessarily arising through deposits. The advantage obtained in England from the exclusion of notes under five pounds is largely lost through the low reserves of private and joint stock banks. These banks are only regulated indirectly and partially by the Bank of England, in respect to international, not internal or domestic trade. If they were compelled to keep a fair and well regulated, — in short, a fixed minimum reserve of twenty per cent., the regulating influence of the metallic circulation would be apparent. Even a fixed minimum reserve of fifteen per cent., gradually increased, would produce the desired effect. To the United States, the question of contraction, for the purpose of obtaining steadier prices, is vital, and as much so, perhaps, in a moral as an industrial and monetary point of view. It has been demonstrated in the foregoing pages that a circulation of gold and silver is not necessarily any safer, and will not produce steadier prices than a paper currency, under like circumstances, when banking reserve is not regulated, as, in fact, it never yet has been. If the banks of the United States, after returning to specie payments, were to adopt and maintain the plan of a fixed minimum banking reserve of say twenty per cent., circulation would be confined, as far as it could be, to supplying consumers, and promoting harmony of production by thenceforth confining it at that point to a consumer's market, and stopping at that point all overproduction. The case would be precisely the same in England if the English government were to adopt the same course as to all banking reserve, notes being issued freely to the Bank of England upon the government debt due the bank. There would then be a call for gold, to bring up all banking reserve to twenty per cent. But without such a change, less than twenty millions pounds, gold, would be

required to make the total currency in England gold and silver, or strictly representative of them. In fact, for all the purposes of this question, we may consider the currency as strictly representative for a small part, and for the remainder actually gold and silver; and then, beside the demonstration already given, what are the actual facts? Why, that Great Britain, of all commercial countries in the world, if we except the United States, is most subject to banking and commercial crises. She is undergoing one now, in 1877. It is true there has been no "panic" as yet; but a panic is only a spasm, which shows the existence of disease; it is not the disease itself, however, in any case. The gold and silver circulating in England in the shape of sovereigns, might to a great extent be quite as well in bank, and represented exactly by the same number of one pound notes, were the reserve duly regulated. The Scotch, with more bank-notes in proportion, claim to have been least affected by banking crises. They must have had more or less expansion and contraction of loans, and hence in trade; but they probably suffered less than the English from the banking crisis witnessed in London, and throughout Great Britain, more or less, in 1866; and why? Simply because the two parties required to produce, in the course of the three or four years preceding 1866, the elements of a banking and commercial crisis of the first magnitude, — viz, bankers and borrowers, — were, so far as Scotland is concerned, eminently conservative, cautious, and sagacious, and loans were made with greater care and less expansion. The borrowers were as cautious about expending their money unproductively as the bankers in lending. Nevertheless, Scotland, like all other parts of the United Kingdom, must have been subject to the general reaction in 1866, as she had, more or less, participated in the expansion. This was unavoidable, because it is inseparable from the deposit loan system, no matter how conservative the bankers and borrowers, when, as always has been the case hitherto, the reserve has been allowed to vary below, as well as above an average. It has so varied hitherto, because the necessity of a fixed minimum has never before, to my knowledge, been asserted; certainly never demonstrated.

CHAPTER XIX.

GOLD, SILVER, AND OTHER METALLIC UNITS OF MONEY.

If only one metal, like gold, silver, or tin, were in use to furnish units of conventional value, purchase, and payment, the total purchasing power of all the units throughout the commercial world would be a mere abstraction, because all the units could not be used at one and the same time, being scattered in the tracks of commerce; and in like manner, the value of all the units of commodities throughout the commercial world, as expressed by the total of coin, would be an abstraction, because the whole of them could by no possibility be sold at one and the same time, by one set of sellers. The production of commodities, and their distribution by means of exchanges, are taking place at all times between different producers, or their agents. This makes local valuations; and these valuations, taken together, give the average. The commodities being distributed throughout the commercial world, the money, which is with scarcely an exception, certainly with very few exceptions, paid for them, either before, or shortly after they are consumed, must necessarily be distributed throughout, as the commodities themselves are. Now capital is that which with the aid of labor produces the commodities. What is capital? It is not a bill of exchange; it is not a promissory note; it is not a mortgage; it is not a deed or patent of land; it is not the bond of an individual; it is not the bond of a corporation; it is not a certificate of stock in a corporation. What then is it? It is land with the appurtenances; it is a railroad with its rolling stock; it is cotton or wool, ready to be made into cloth; it is gold or silver bullion, or any other metal manufactured or not manufactured; it is movable property

of any kind in the hands of a producer, who has not yet sold it; when sold to a consumer, if designed for actual consumption, it ceases to be capital in a true sense, because no more value can be added to it by a producer. Its consumption may take place immediately, or only after long use; and meantime, in consequence of this consumption, room is given for more production, the consumer himself, either actually in his own proper person, or through his agency as a capitalist, acting the part of producer to the producer who supplied him, and who thus in his turn acts the part of consumer. Every member of the community, therefore, who has an income, is either actually or representatively a producer, while he and those he provides for are consumers. His bonds, mortgages, notes, bills, deeds, and certificates of stock are not capital, but documentary evidence of it. Hence, by the way, to tax a railroad and its equipment as a whole to a corporation, and at the same time to tax the several parts of the whole to the owners of stock, is to tax productive capital twice; and to tax the bond-holder is to tax the third time. To tax land to its full value to the owner, and the mortgage upon it to a mortgagee, is to tax twice. But this taxation is no worse, and no more unjust, than the taxation of money.

If A. has to-day ten thousand dollars in gold or bank-notes in his safe, or a deposit of like amount in a commercial bank, and loans it out to-morrow on bond and mortgage, he is secured by what is called fixed capital: if he makes a commercial loan and takes a bill of exchange or note, he is secured, but to a less certain degree, by what is called quick capital. It is claimed by some that if he be taxed to-day on his money, taxation will be just, but if he is not taxed until to-morrow, after he has loaned it, it will be unjust, unless, should he loan on fixed capital, the owner of the fixed capital, who secures him, is released from taxation to the extent of the loan. If he loans, however, in effect, upon the security of quick capital in the owner's hands, although he takes only a bill or note, it is not claimed that the taxation of his note or bill is unjust.

The foregoing brief analysis demonstrates the utter fallacy of claiming exemption from taxation, for corporation bonds and stocks and mortgages of all kinds, without claiming at the same time exemption for money. The answer, in opposition to my analysis and the inference I draw from it, would undoubtedly be, *coin is a commodity*; if A. has ten thousand dollars in gold coin to-day, he has a substantial commodity, and if he has the same amount in bank debt, he can convert it, on demand, into coin: he ought to be taxed precisely as if he had wheat or cloth for sale to that value; but when he has made the loan, he has only a right of action. Such utterly fallacious reasoning as this, falsely founded upon the real fact that the material of gold coin is a commodity, — this fact producing the illusion, that the coin itself, when used as money, continues to be a commodity, — is of that sort which keeps from the understanding the perception of the true nature and office of money. There is no sound reason why a capitalist should be assessed and taxed on his money, and not assessed and taxed on his mortgages. If there were no production, there could be no taxation: all taxes are paid out of production, and not otherwise; production ought, if possible, to be taxed but once, and therefore it is certain that in all these cases production is overtaxed, because, in other cases, it is taxed but once.

There are methods by which, in such cases, double taxation might sometimes be avoided, but I shall not refer to them. My object is, to furnish an absolute demonstration in another form of the fallacy of the proposition, that money is under any circumstances to be taxed as a commodity; for until that is demonstrated, and the demonstration understood, it is utterly useless to attempt to show what the true grounds of taxation are. Why should A. be assessed to-day on ten thousand dollars, gold coin, if he has it, and not assessed on the same amount in bonds and mortgages? The ten thousand dollars, gold coin, demonstrate that he has caused production to take place to that amount, because, first or last, he has sold, or caused to be sold, products for the ten thousand dollars in gold he has now in his safe. In like

manner, his bonds and mortgages demonstrate the same fact. The possession of the ten thousand dollars, coin, does not demonstrate that it cost ten thousand dollars to mine, smelt, and coin the gold in his possession, but it demonstrates, if he is not a thief, a robber, or a swindler, that it cost him ten thousand dollars' worth of products; and precisely there the demonstration stops. He has parted with products, and has nothing but money, which is serviceable to buy products such as he wants, to take the place of those he did not want, and therefore sold.

The only power possessed by the money, then, is valuing, purchasing, and paying power, which is conventional only. He will continue to get products for his money as long as the convention lasts, but no longer. When it is abrogated or repealed by the government, acting in the name and on behalf of the community, he can use the power no longer, but meantime some kind of redemption will take place by the government, in the shape of units of other metal, given him in exchange for his gold at the treasury; and if the government is unable to do this at once, it will, while stopping all further coinage of that metal, allow the pieces in circulation to continue in circulation at their former value until gradually redeemed and retired by the new metal. But meantime the material out of which the old coin is made (gold bullion) may sink in value twenty, thirty, or fifty per cent. Who shall bear this loss? There is no loss whatever to the holders: their money circulates at par, notwithstanding the depreciation. Why is this? The commodity out of which the coin is manufactured has depreciated twenty per cent. or more, which is a greater loss than could happen by years of taxation; and if the coin is a commodity also, it must depreciate to the same extent. But it does not; and hence it is clear that as coin it must be taken out of the category of commodities. Upon what principle, then, does it circulate at par? Clearly, manifestly, upon that of convention. The government, representing society, has so enacted, and the people have by their acts ratified the enactment. Even if the government had not so enacted, the

people might, and probably would, continue to use it until it had been gradually retired, losing purchasing power from time to time. No enactment of government can fix the value of commodities, but it can take the coinage into its own hands exclusively (to a certain extent), and coin gold eagles and double eagles of half the present standard weight, and make them legal tender to the same extent as those of full weight. What then? Will the purchasing power of the new coin sink to one half that of the old coin? Here is a *crucial* test. As government cannot by legislation change the value of any commodity, and as the only possible value of gold coin lies in its purchasing power, if the purchasing power of the coin is reduced one half, then gold coin is a commodity; if it is not, then it certainly is not a commodity. Now the effect of this coinage would be to drive out a part of the old coin, but not exactly to the extent of the new issue. The new issue would have the same purchasing power as the old, *minus* the small loss of purchasing power that would result if the amount of gold economized in the coinage, instead of being economized, had been suddenly discovered as buried treasure. Suppose the amount economized to be one hundred millions of dollars. The ratio of this economy of material to the commercial world's treasure in the shape of coin, if we call that treasure ten thousand millions of dollars, would be one per cent. only. If the coinage were to take place gradually, therefore, the final loss of purchasing power would be one per cent., against a national economy of twenty per cent., if the national circulation were five hundred millions. Hence, by the clearest demonstration, the two hundred millions of coin of half the usual weight are, in the country where coined, equal to the same number of full weight. Were government, acting on behalf of the community, to attempt to fix the value of copper, iron, or tin, the attempt would prove abortive; but it has, in the case supposed above, where the metal gold was not demonetized, actually depreciated gold coin throughout the commercial world. This depreciation was not the result of demonetization, but of increased coinage, the local gain of twenty per

cent. being the exact equivalent of the commercial world's loss, which was one per cent. Hence the value of bullion as a commodity can be extensively controlled by local coinage. Again: suppose all the countries in the commercial world, following the example in the case assumed above, should make an equal proportion of their gold coins of half weight, declaring them to possess the same value in exchange as they had previously done when of full weight. What would be the result? The same as in the case supposed. If the gold economized amounted to one thousand millions of dollars, it would be equivalent to the production of that sum in gold, with a resulting depreciation, spread over the commercial world, of twelve and one half per cent., the ratio of the amount economized to the total mass in coin being as 1,000 to 5,000.

But would that be the measure of the depreciation ultimately? No; because one third of the amount saved would go into manufacture, making the net depreciation only thirteen and one third per cent. Upon this principle all token money, as it is called, circulates. If Germany or the nations of the Latin Union choose, either or all of them can coin more silver of the present standard, at the old rate of 15½, and it will be equal in purchasing power to gold at that ratio, instead of the ratio prevailing in the bullion market, provided their issue be confined within proper limits. Again, they or either of them could coin silver anew according to the present ratio of silver to gold bullion; and if the monopoly of coinage still remained with the governments, and this coinage were not so extensive as to find such a market for silver bullion as would raise materially the present price; the new coins of increased weight would still circulate by the side of the others of the old weight. The fact, then, is, that where gold is the standard, coins of half the usual weight could be used up to a certain point, with national "economy," at the expense of international economy. It would be equivalent to the actual production from the mines of the amount economized, and the latter would be equivalent to so much convertible paper money. But an increased

production of gold diminishes the purchasing power or value of gold in proportion to the increase as compared with the mass already existing; and the same is true of silver, because it increases the number of units which can be coined, distributed, and paid out. Hence the increase of metallic production, on the one hand, and the decrease of production, on the other, are material chiefly, as they enable a greater or less quantity of metal to be used in the arts, and so minister to the wants of civilized man. What do these facts plainly demonstrate? If they are facts, or unquestionable truths, they plainly demonstrate that the value of all metallic money, and, by parity of reason, of all other money, is conventional, and it is not a proper subject of taxation; that the larger field of convention controls the smaller field, and that so long as the convention of the smaller field comes not in conflict with that of the larger, it stands; otherwise, so far, and only so far, it necessarily falls. The laws of trade settle this question practically, because all merchandise goes where it is worth most. If the metal leaves the smaller field for the larger, however, it goes not as ordinary merchandise, because there is a demand for it, but because its value having, by reason of general usage, been practically fixed as matter of convention, the convention must stand until abrogated by one equally general.

The terms of the convention, evidenced by usage, are, that gold and silver, or one of them, shall be universally received as the world's money. There is no mode of using it but by weight or measure, and the former has been adopted. Governments, on behalf of their respective communities, have undertaken the coinage, either with or without a small seigniorage, for all the owners of bullion. The question then is one of supply, so far as the commercial world is concerned, and metallic money follows commerce. If any nation, or any number of nations, were resolved to economize gold in the manner before suggested, by gradually calling in and re-coining their different denominations of gold coin at half standard weight, by the time one half of it could be coined a portion of the other half would have left for other parts

of the commercial world. Short of recoinng one half of all the gold coin throughout the commercial world, it could be accomplished with some profit; one quarter with great, and one eighth with still greater proportionate local profit: it would be equivalent to issuing so much paper. If the whole commercial world were to recoin all the gold in like manner, however, the result would be nothing, because the purchasing power of each coin would be reduced one half. Hence it is clear that gold and silver coin, and indeed any kind of metallic money equally with bank-notes, ought to be taken out of the category of commodities justly liable to taxation, because no money can by any possibility be a commodity, in its character of money. This is a proposition which must be clearly perceived and fully understood, before it is possible to have any true conception of money, and the influence it has over the fortunes and the fates of all producers. To understand what money is, we must know what a simple ratio is. It is a relation existing between numbers. If a dollar be, as with us it is, the unit of money, the term Dollar is the Standard; that is to say, it is the Standard Unit whose additions, one to the other, and whose subdivisions, constitute the numerator of that ratio whose result or quotient is Price. If one unit of cloth, called a yard, be worth one dollar, the statement of the ratio is $\frac{1 \text{ (dollar)}}{1 \text{ (yard)}}$, and the quotient or price is 1; that is to say, One Dollar: if one unit of cloth be worth two dollars, the statement of the ratio is $\frac{2 \text{ (dollars)}}{1 \text{ (yard)}}$. The value of the units of goods estimated in money is therefore directly as the units of money by which the estimation is made; and the value of the units of money, estimated in units of goods, directly as the units of goods. Hence the value of money and the value of goods are always inversely proportioned to each other: as one rises the other falls, and as one falls the other rises. This is altogether an artificial arrangement, although naturally developed; and hence the value of the goods thus estimated in money, and the value of the money thus estimated in goods, are both equally artificial and conventional. The units of goods, so far as they estimate

the value of the units of money, are abstract and intangible, as the units of every ratio must be; but the goods are only used for this purpose once, to enable them to be valued, exchanged, and consumed; the money is always used in this manner, and can be used in no other. Hence units of coin, being scattered in the tracks of commerce throughout the world, have value in goods, inversely proportioned to the number of them, offered for a certain number of units of goods. The purchasing power of the unit of money depends upon the total number of units of money throughout the commercial world, the demand as affected by the state of civilization, the distribution of the money in payment for labor and materials, and the energy of production.

The units of coin being always used as money, therefore, are, *as such units*, intangible and abstract; and the mass of coin throughout the world, if only one metal were in use, must always furnish units of purchasing power proportioned, as before stated in the case of silver or gold, by weight, no matter what the quality of the metal or weight of its mass may be. If there are two metals, they must necessarily have the purchasing power, or, in other words, conventional value of their respective coins, proportioned to each other inversely, as the weights of their respective masses existing in the shape of coin. If there were but one metal, the purchasing power of the coins must vary ultimately, as the weight of the total mass in coin varies. Hence, if there were two metals universally and equally distributed throughout the commercial world, and used as money, the purchasing power of the two could never exceed that of one, were one alone used as money, because the purchasing power is limited by the total of goods. Hence, also, by the law of absolute necessity, that is to say, the absolute impossibility of its being otherwise, the purchasing power of the coins of either metal must be to those of the other as the weights of their respective masses in coin; and the total potential purchasing power of the two metals must be equally divided between the two. This proposition is true only upon the

supposition that two metals distributed throughout the commercial world, like gold and silver, are equally and everywhere monetized ; and it would hold good were there three, or any other number of metals, instead of two ; the adoption of any one metal being conventional, that of a second, third, or fourth would be equally so. Having been adopted, if there were three metals, the purchasing power of one ounce of either of the three metals would be to that of either of the remaining two inversely as the weights of the respective masses of the metals in coin. This proposition would be true to-day of silver and gold, if they were equally and everywhere metallic material for coining money throughout the commercial world ; but silver of late having been refused coinage in the Latin Union in consequence of a like proceeding in Germany, having been long before demonetized by Great Britain directly, and by the United States indirectly, the proposition is not, in fact, true now of these metals. Were silver to be remonetized fully by one or more governments, the relation between the two metals in the particular mentioned would approximate more or less towards that of equality of conventional value, as previously stated, according to the extent of the commerce of the governments remonetizing.

ACTUAL RELATIONS BETWEEN COINED UNITS OF METALLIC MONEY ; BETWEEN THE TOTALS OF THOSE UNITS AND THE MASSES OF METAL NOT COINED ; AND BETWEEN THE MASSES NOT COINED, THEMSELVES.

The relation, in point of conventional value, between silver and gold, has been stated in general terms. Were gold to be fully monetized by all the eastern, and silver by all the western nations, the ratio would probably be essentially changed from the old one of $15\frac{1}{2}$, existing prior to the late partial demonetizations in Europe. The ratio of $15\frac{1}{2}$ having been, prior to those demonetizations, very nearly the true one, assuming it to be the exact one, there must have been, on the average, one pound of gold in coin very nearly for every fifteen and one half pounds of silver. Were it

not so, that ratio could not have been so long maintained. Whatever would be the true ratio in case of a general monetization of both metals by all nations, or in case the mono-silver standard were adopted by nations having half the world's commerce, and the mono-gold standard by nations having the other half, in either case equal values of the two metals would be maintained in coin and equal values in manufactured commodities. What would be the ratio under a universal monetization of both metals is conjectural. It probably would not be less than 15 and 1. There must have been, for a considerable period, very nearly equal amounts of gold and silver, in point of value, in coin, and equal amounts of each in a manufactured state. If the true ratio between silver and gold were 15, instead of $15\frac{1}{2}$, and the production of silver to that of gold as 45 to 1, then one third of the mass in weight of gold, and seven ninths of that of silver, must have gone into manufacture. The mass of silver by weight which has gone into manufacture would then be to that of gold manufactured, as 105 to 1. But the premises are only approximately true; it cannot be known, as matter of fact, what the ratios of metallic production have averaged. Under a general monetization of both metals, purchasing power must constantly tend to an even division between them, thus maintaining at average the ratios of commodity value; and where either metal is demonetized the other must gradually take its place in the conventional field, and at last, in process of time, acquire potentially, as a series of valuing units, all the valuing power the departing units surrender. The total volume of units of both metals taken together becoming gradually less and less, when the demonetizations take place, and as the departing units are withdrawn, the value of those which remain must increase as their whole number is diminished, but so slowly as to escape notice, and therefore, for all practical purposes, without injury. This is the correct statement of results, independently of compensating incidents. The latter are an increasing stimulus to the production of the metal whose barter value as bullion has increased; decreasing stimulus to the

production of the metal whose barter value as bullion has fallen off; decreasing consumption of the former, and increasing consumption of the latter metal for purposes of manufacture, because it is cheaper than before demonetization. Subject to these compensating incidents, the general tendency is as stated. Did these not arise, the barter ratio between metals, as changed by demonetization, would ultimately extend to both metals in their character of units of money, by enlarging the volume of the units of merchandise in commerce relatively to that of the units of metal not demonetized, and, on the other hand, by diminishing it as compared with that of the units of metal demonetized. We have here demonstrative evidence of the proposition that a piece of silver or gold, used as a coin, values only as a single unit, in proportion to the whole number used, precisely as would a bank-note of the same denomination, and therefore in virtue of conventional and not intrinsic value. The barter value of the metal not demonetized, as compared with the other, at once changes, according to the extent of the demonetization, but the value of the coined units of both metals remain exactly as before and may possibly never change at all, because the compensating incidents before alluded to, to which must be added the indefinite but very important ones of bank-notes and economy of coin, varying as these do, may prevent it entirely. The unit value of pieces of silver and gold weighed and coined is an average resulting from the millions of ratios which constitute buying and selling. Were these all stated, as they cannot be, the average result would give purchasing power and price, with mathematical accuracy. The average of the barter rates of the metals for any given period, on the other hand, can be stated with perfect accuracy. The two averages differ in all respects, because one is the result of that tacit convention which is the condition precedent to the existence of the other, and necessarily antedates it. Money is conventional, and the necessity for its use is so great that it was developed almost as naturally as language. Silver and gold were the best adapted to the use, and therefore were from very early

periods employed to furnish material. That money is conventional is certain, because, unless it were so, it never could be given a general buying power. To have that power, it must, in the character of abstract units, value what it buys, and, localized in paper or metal, pay, by delivery either actual or constructive. The value of each unit coin is, abstractly stated, an integral part of all the coin existing. Every sale is a valuation by ratio, perfected by mutual deliveries of the units (localized in the paper or metal, and placed in the denominator of the ratio of price) to the seller, and the delivery of the valued goods to the buyer. Were this not so, the use of bank-notes as valuing and paying units would never have been developed. There is no double barter in the case. Single barter between the metals (silver and gold) used as money antedates their use as money. This barter exchange between the metals as bullion is supposed to follow them in their character of units of money when exchanged for merchandise, thus giving rise to double barter, as an improvement upon single barter. This is a fallacy which has hitherto passed for truth in the science of money, and made it a science of contradictions. It is not absolutely but only accidentally true, that the bullion in a coin is worth as much as the coin itself. The average barter rate between silver and gold in London, since the late demonetizations, shows the resulting barter gain in gold, and barter loss in silver. Gold valued in silver has risen, and silver valued in gold has fallen. The former has risen, on the average, above the former par seven and one half per cent., and the latter has fallen seven and one half below it, but gold has not gained one per cent. in England in unit value as money, nor has silver lost one per cent. in unit value as money elsewhere; and possibly it never may. It has lost, therefore, only as the commodity or raw material to make money units. The only barter possible is that which *precedes*, but does not constitute the use of either metal as money. It antedates that use because the use cannot exist without it. When a piece of metal is coined, its value in any given case is determined by three

ratios: first, the total number of units it adds to the existing total; secondly, the total circulation (number of exchanges) going on within certain periods upon the average, — which depends very much upon whether prices are, in the country of coinage, in the rising or falling scale; and thirdly, local causes of variation. These are highly complex elements; those of the barter exchange between metals are simple. It is not, then, a matter of conjecture, but absolute certainty, that gold and silver in coin are not exchanged, as merchandise for merchandise: it might be said, if the premises are true, to be mathematically certain.

For any nation which, through direct or indirect demonetization of silver, has ceased to employ it any longer except for subsidiary uses, to establish its free coinage again at this time must be the result of entire ignorance of what money really is. The United States cannot do it until after a return to convertibility, and then it is possible it may not be attempted, and if attempted it may be abandoned. The time will probably come when, the true nature of money being understood, a general remonetization of silver and gold, by all the nations of Europe and the United States, will be brought about by treaty. Until then no nation should establish its free coinage alone.

CHAPTER XX.

FALLACIES ARISING FROM THE REDEMPTION OF CURRENCIES.

THERE is no fallacy that has done so much to mask from even the strongest understandings the actual facts resulting from bank loans in England and the United States, as the fallacy which I will call Fallacy No. 2, which results from the theory, or rather the almost universal impression, that gold represents or is worth a certain amount of labor which was required to obtain it ; but that bank-notes and bank credits do not. The fallacy which I call No. 1, and which precedes the second, asserts that bank-notes possess no intrinsic value, and so are not properly money ; yet, inasmuch as it is evident that they take the place of so much gold, and are called money, theorists are compelled to admit that they must be what everybody calls them — money. When it comes to the bank credit, there is still another fallacy to encounter, resulting from the first, but, unfortunately, the understanding is not aided here by the use of a word ; theorists call it a credit, and therefore no matter what else it may be, it is only a common credit after all ; and the understanding is prevented from perceiving that even if units of what is called credit are circulated by transfer, in place of large sums in bank-notes, it is precisely the same thing as if a like amount in bank-notes labeled with the depositor's name were, in all cases when credits are transferred by checks, re-labeled with the name of the new depositor ; notes being, in such cases, by supposition, always kept to the amount of deposits. Adam Smith says that in his time, after bank-notes had taken the place of three quarters of the gold and silver formerly used, the

dealers kept large sums by them in paper, which was mostly confined to wholesale transactions, and circulated from one dealer to another. It is precisely the same thing now, except in its effects, where transfers of credit are made through banks: the credit is a power to draw for so many bank-notes, or for so much gold. Now the first fallacy in order is Fallacy No. 1, that bank-notes are not money in reality, because they possess no intrinsic value represented by an equivalent amount of labor; can only be called money in obedience to common usage; and, in point of fact, have nothing more to do with raising prices than bank credits; and that bank credits have no more to do with prices than any other kind of credits; so that, after all, it is only a question of words: bank-notes and bank credits, say the theorists, have no effect as such on prices. This is Mr. Mill's theory, and that of his followers. Both these fallacies, after all, resolve themselves into one: gold and silver have intrinsic value as commodities, and are money; all forms of credit are without intrinsic value; they pay by set-off, and are not money. This is the whole case, stated in a few words.

Now if gold and silver have intrinsic value, because they cost a certain amount of labor, the equivalent of a certain quantity of commodities, so has the credit for all practical purposes in the hands of the holder, because it cost the same; and the bank or the government has the disposal of an amount of commodities equaling the amount of notes issued, and the first seller at hand will honor and acknowledge the present holder's right to them.

The intrinsic value of a gold dollar or sovereign, as compared with a note for like amount, is that value which would remain in it if demonetized universally. That demonetization might take place by common consent of all nations signified in a binding manner. The result would be a loss to the unfortunate holders of probably seventy-five per cent. or more of the present value of the metal; but the demonetization of paper would not convert it into anything *intrinsically* different from what it was before: the demonetization

would in fact leave it precisely what it was before, — a claim against the issuer, whether government or bank, for the same amount ; and it may be said, with the most rigorous accuracy, that the holder possesses through the paper that amount of intrinsic value, because, if he loses it, and it is at the same time lost to everybody else, through being destroyed or not found, he has no title or claim against anybody. He has lost the document that proves his title to receive and use that amount, either of gold or commodities produced by labor. It is the sole evidence that he is entitled to everything the whole nation or the bank is able to procure for him to that amount. The title-deed to property, the mortgage, the stock certificate, the note, and the bill of exchange, are only evidences of title, but for all practical purposes they are property to the amount they will bring in the market, where title to property passes with them. They may and ought to be for all practical purposes (and money and exchanges are eminently practical) considered as being (what they really are) property itself, because the property they denote passes symbolically through them ; and hence, being, as they are, treated as wealth and sources of income in taxation, the balance of debt ought to be deducted in all assessments, in order to avoid double taxation where capital and not income is taxed, as generally happens. For all practical purposes, then, the demonstration is complete, that a dollar note has seventy-five per cent. intrinsic value in excess of a gold dollar, when the note is at par.

But there is a fallacy in the premises similar to the one we have just laid aside which must be eliminated : governments at this day would not demonetize gold without fair notice, which would retire it into the national coffers in exchange for the substitute : and what then ? The loss, instead of being private, would be national, and not only national but universal, extending over the commercial world, — an enormous loss of between three and four thousand millions of dollars. But there is still another fallacy to eliminate (we have been entrapped by the old fallacy of intrinsic value again) : there is no real loss : the value, in the charac-

ter of purchasing power, is extinguished in the gold as money, and the value extinguished is carried over to and redeemed by the substitute, which may or may not have an intrinsic value as a commodity, like gold. There is no loss at all by this demonetization, as there was none by the demonetization of the paper. What was supposed to have intrinsic is thus redeemed by something which has only conventional value.

If we are to have any science, we must abandon this theory of intrinsic value, sacrificing it (if that indeed be possible) to the real fact that everything is money, and has a value as money, that circulates as such, the community being guarantor; that is to say, its government being bound to take away the possibility of loss to the holders by due notice in case of demonetization, if the money has only a national circulation and is coined by government. If international, however, that government commits a wrong that monetizes or demonetizes any metallic substance without an international conference. Upon this subject, if the real equities were understood, governments are as much bound to act jointly, or at least give long notice of single action in advance, as any one nation is so bound to its subjects or citizens. Want of notice, however, in the latter case, is not so essential, because the currency would consist of paper which would suffer probably no depreciation.

Hence we see it is an old fallacy to suppose that redemption of any kind of currency is anything more than a local or general exchange of one kind for another, in order to effect the general purpose of exchange of commodities, and to limit production by consumption.

CHAPTER XXI.

PREMIUM ON GOLD AND SILVER.

THE value of gold and silver being conventional, and the field of convention being the commercial world, these metals moreover being highly useful in the arts, it is not unreasonable that a premium should be paid for gold, even when purchased with government legal-tender notes which are not convertible into coin.

In the United States gold has borne a premium for more than fifteen years. The demand for use in the arts might be, and undoubtedly has been, an element in the premium ; but, independently of that element, the law which requires duties to be paid in gold would of itself be likely to create a premium. During the late civil war in the United States the enormous premium, and the enormous variations of premium, were the measure of the doubts and opinions of speculators and of capitalists in respect to the final result, to a considerable extent, and of the demand for gold coin on the part of those who, also entertaining doubts, wanted coin to hold.

In England during the wars following the French Revolution, and after the suspension of payments by the bank, the government needed gold to send abroad to pay troops and furnish subsidies to allies ; and this demand raised the premium. On the other hand, in the late Franco-Prussian war, notwithstanding the enormous issues of inconvertible paper by the Bank of France, the premium was nominal only, and rose but slightly when the government was performing the remarkable feat of remitting five thousand millions of francs in payment of the military fine. Therefore it is abundantly clear as matter of fact, independently of the demonstrations

heretofore given, that no gold or other metal in the shape of coin is a standard ; neither is it a commodity : it has been called a standard, because it is supposed to be a commodity, but it cannot be a commodity because as money it has the same effect on price as a bank-note, and no more : the bank-note is but a unit when placed in the denominator of the ratio of price, and a gold coin is no more. Were it a real commodity, possessing value by reason of its intrinsic qualities alone, it would be a standard, and the premium paid in inconvertible paper money would show the measure of depreciation of the latter in point of conventional value, or purchasing power as asserted by Mill. On the contrary, the purchasing power of a pound of gold in coin between the years 1857 and 1861, before the late civil war in the United States, was, on the average, at least forty per cent. greater than its average purchasing power between 1861 and 1873 in the same country. The average premium during the latter period was no indication of the amount of depreciation in purchasing power of the inconvertible which had taken the place of convertible paper, because the depreciation necessarily embraced all money. The average premium during the war was, however, in all probability, an indicator to some extent of the actual difference in this respect between the currency as it was and as it would have been if convertible. The coincidence, nevertheless, was accidental only, and may be stated thus : The discount on the inconvertible currency in exchange for gold, during the war, arose from the demand for conversion into gold, by reason of doubts in respect to the result, and this discount was on the average, *incidentally*, about equal in amount to the loss in purchasing power the paper currency had undergone by reason of overissue and non-convertibility. This high premium came to an end at the close of the war. Viewing the period of the war from its commencement in 1861 to the spring of 1877, embracing, as it does, twelve years, and calling the average premium for the period twelve per cent., gold must have lost in conventional value in the United States, as compared with the period of four years preceding the war, and

with average prices in France and England, at least forty per cent. In like manner the rise of prices under a convertible currency, by reason of bank loans, both in England and the United States, relatively depreciates gold in purchasing power in a less degree, as well as the paper which is convertible into gold. The same may be said of silver. Suppose one thousand Mexican dollars worth, at least, as much as one thousand American gold dollars in London, and perhaps more before the demonetization of silver was begun by Germany, to have been sold for gold coin in London in 1870. The gold coin could have been immediately invested in England, for the ordinary comforts of life, to forty per cent. better advantage than on the average in the United States, all other differences allowed for. Notwithstanding all this, a large amount of gold remained in the United States, and a much larger amount would have remained, had not the interest on the public debt of the United States for the most part, and the debt itself, been made payable in gold. The price of bullion, and the purchasing power of money coined from it, in one country, do not therefore always regulate or control its purchasing power in another: prices are fixed locally, and the value of bullion converted into standard money, in one country, does not establish or regulate the prices of commodities in other countries. The purchasing power, which is the ordinary name for conventional value of coin used as money, varies locally, more or less, but chiefly because all paper and credit money has the same effect on prices as metallic money. Were there no money but gold and silver coin, and no banks, active commerce and free trade would bring about an equilibrium to a great extent between the conventional values of gold or other metal used as money everywhere; but inasmuch as paper or credit money cannot be carried abroad, and its purchasing power used there, while its necessary effect at home, under present conditions, is to raise, depress, and vary prices, the consequence is, that gold coin itself varies in purchasing power with other money. In commodities of international commerce, therefore, valued in gold for the most part, the price for any time, everywhere,

is their lowest price in any commercial country, added to the cost of importing them, including profits ; and the average price, setting aside fluctuations in demand and supply, and regarding only the price as varied by different currencies, is the average of the purchasing power or conventional value of gold in each commercial country.

Under any and all circumstances, the relative value of one gold coin, as compared with another, and of a gold coin as compared with a silver coin, is a matter of relative weight ; relative purchasing power or conventional value requiring to be fixed in some manner, and no other method of adjustment than that of weight being possible. The division of all bullion, therefore, into coin, the price of silver bullion in gold and of gold bullion in silver coin, are but the necessary conditions of the manufacture of the metallic material of money into units, and the adjustment of their relative purchasing powers in the abstract ; it is the providing of the means by which the conventional process of circulating money is rendered possible ; the paper unit, if convertible, and the gold unit of the same denomination, having the same purchasing power.

The result produced by banks, and their paper and credit, is, that the paper performs the functions of circulation very largely — the bank credit being a power to use the reserve ; gold goes into reserve extensively, and might be largely disposed of as merchandise. Were it otherwise, gold would be distributed and circulated as money throughout the commercial world altogether, in proportion to and in harmony with commerce, as in France. It is so distributed now to a considerable extent, but the distribution is varied, not only by commerce, but the degree to which the use of bank-notes and deposits diminishes the amount required by each country. This is called economizing gold ; but it is under our system of banking the means of bringing on banking, commercial, and industrial crises. Given the circulation of metal, or of metal and paper, and the rise of prices depends solely upon the number of money units in the first place, and in the second place upon the number of times they can be loaned to a producer, be he manufacturer, merchant, railroad con-

tractor, contractor for municipal improvements, or in any other sense a producer. It is immaterial what is the character of the money, whether paper or metal, provided the amount to be circulated remains the same in point of number of units, with like grade of purchasing power. If the number of these units of like grade, used to pay for equal quantities of labor and material, be in one country metallic and in another paper with the same circulation, the ratio of variation in prices must necessarily be the same in the one as in the other. In England the circulation is, with the exception of say twenty millions pounds, metallic, or with metal behind it, pound for pound. The deposit and discount banking system is in full movement there; possibly as far as it is practicable to carry it, but probably it might be extended somewhat farther. In the United States the system has been constantly extending, and may be considered as approximating its possible maximum. In the United States, however, there is, even when paper money is convertible, but very little metal in actual circulation. On the whole, to every one hundred dollars of bank-notes, or every one hundred dollars of bank credits, which are equivalent powers to actually put in circulation a like amount of bank-notes or gold, or save putting them in circulation by means of what may be called the plan of consolidated reserves and clearing, there is a smaller amount of coin than in England; and in this manner nominally less money in England, and, through expansion of volume, more money in the United States, is required to pay for a given amount or quantity of production. The larger the amount of coin (in reserve and in circulation) there is, on the average, to a given amount of money circulated in any country, the lower, so far as the totals of money can have any effect relatively, in making prices higher or lower, must the range (not the ratio of variation) of prices be; for the total amount of coin that can be circulated at any time in a country like France is the total amount that can be obtained already mined, coined, and within reach; but the total amount of bank-notes and metal that can be put in circulation is the total of loans that the banks can make and keep out; and there is no limit to the issue but

a banking crisis, because there is no other limit to the circulation. The real difference between a metallic and a convertible bank-note circulation, where neither is duly limited by gold under a deposit and discount bank system fully developed, is shown by the fact that the only advantage the founders of the Bank of England procured for that great producing and commercial country, in changing the system of the Bank of England as it was before to what it was after 1844, consisted in making the range of prices less. They did not establish a paper circulation varying like coin, in the sense that France has one. In England, as well as in the United States, prices periodically go up and periodically go down, with an immense degree of variation in all things pertaining to the relative necessities and needs of civilized life; in the absolute necessities of life there is comparatively less variation: the grand causes of demand and supply make the difference. As they vary up, more, and as they vary down, less money is put in circulation by the agency of the banks, because in the face of that downward variation more cannot possibly be circulated. Mr. Thomas Tooke, F. R. S., published his *Thoughts and Details on the high and low prices of the thirty years from 1793 to 1822*, shortly after the latter date. He intended by his tables of prices to prove as matter of fact the proposition, that prices rose and fell independently of the increase of bank-notes issued by the bank during that period; and that the premium on metal rose and fell also without regard to the note issues of the bank, and showed only the difference between the foreign and home prices of imported merchandise; that while there was therefore no rise of prices from the bank issues, metal itself rose in price from causes altogether independent of bank issues. The bullion party, on the other hand, contended that prices had risen in consequence of the increased bank issues, and that the premium on metal did not indicate the true amount of the rise, but much less. Mr. Tooke was right in his opinion that the premium on metal did not arise from the issues of bank-notes by the Bank of England; this negative proposition has been practically demonstrated within the last seven years by the enormous issues of the Bank of

France. The bullionists, on the other hand, were right as to the fact of *average rise* of prices of domestic products, as Tooke himself was forced to admit. Both parties, however, the anti-bullionists on whose side Tooke wrote as well as the bullionists, were wrong as to the operative cause ; neither of them knew what it was. Inconvertibility, increased issues, and increased circulation by the agency of the banks, furnished the conditions, and the premium on gold arose perhaps somewhat from these causes and somewhat from demand for hoarding, but chiefly from the demand for metal to be carried or remitted abroad : the price of foreign merchandise, being reckoned and paid in metal, was necessarily shown by the cost, premium, and duties, as has been the case in these United States for the last fifteen years. Gold and foreign goods, even when the latter were subject to considerable duty, were frequently the cheapest articles in the market. On the whole, the difference between prices under a purely metallic circulation, uncontrolled by banks, and a metallic, a convertible, or an inconvertible circulation, controlled by banks of deposit and discount, lies chiefly, if not wholly, in steadiness. If prices, through inconvertible paper, or deposit and discount banking, or to a much more limited degree as to some articles, personal credit, are carried up above average, a commercial crisis, local or general, of some kind, carries them as much below as they had been carried above average. Metal, on the other hand, while having only its natural circulation, even when supplemented by bank-notes to some extent, as in France, cannot be obtained in the usual course of exchanges, nor borrowed in sufficient amounts to invest to a very great extent in labor and materials, whose product will not sell ; if sales cannot be made, the work must stop. Therefore, under such a system of money, the progressive improvements of machinery which are all the time, and preëminently in the United States, making less labor supply a given product, are unable to increase and intensify a glut or want of harmony in production ; the extra labor not needed is forced at once into other fields before a national crisis intervenes.

CHAPTER XXII.

VARIATIONS IN BANK-NOTE CIRCULATION.

BANKING properly means the business done by banks of deposit and discount: nevertheless, by usage it includes the business of issuing notes intended to circulate as money, and these notes are money because they are so called; and they are so called because they have not only a purchasing power through the credit of the issuer, but also a paying power; they are the written debt of a banker payable in coin on demand: money on deposit over and above reserve consists of "inscribed" banker's debt, evidenced by book entries, and, if no money is withdrawn, transferable by check for the most part in commercial centres through the clearing house, and for the remainder, of coin and notes paid out on checks. The two kinds of banker's debt are the same in effect as to supplementing and economizing gold; the former transferring or circulating commodities or merchandise chiefly at wholesale, the latter at retail; and when obtained by the holder on a bank loan, whether from a commercial or savings bank, debt is employed usually in the payment of labor, that is to say in production and not in distribution. It is almost entirely through the unduly expanded circulation of the written by means of the inscribed debt, and the total inability of banks and their customers who receive loans in bank-notes — that is to say producers, manufacturers, contractors, and adventurers — to stop their loans at the right point, and thus balance production of commodities by consumption, that cycles of redundant and inharmonious production, ending in a crisis more or less prolonged, have occurred periodically in England and the United States for some time past. Most writers upon money — notably Mill and Price —

have much to say upon "circulation," or the movement of banker's debt in the shape of bank-notes, and therefore of sales or distribution of commodities, and but little of production ; and thus they are unable to explain, or rather leave unexplained, the *cause* of banking and industrial crises.

The old theory demonstrated by so many writers before them, that there can be no overproduction, which, though true, is true only in the most abstract sense, has been taken by them for granted ; but the producing or manufacturing, and the distributing or mercantile, and also the banking community, have, as I believe, come to the conclusion within a few years past that there may be very great overproduction or redundant production, and that this is not a co-factor, not a co-efficient, with anything else in producing, but the sole immediate cause of such crises.

This is a great point gained, when the men in whose hands lies the remedy — if remedy there be — for a great evil, the magnitude of which is past calculation, have agreed as to what is the cause. It is too much, perhaps, to say that these men have agreed, but there is a considerable portion of the reflecting men who have so agreed. Mr. Price says that the true crisis is a destruction of means, a diminution of wealth ; that wealth has perished in unproductive consumption. To "practical" men these assertions do not convey the whole truth. The greater part of the overproduction everywhere, and preëminently in the United States, is of such kind that the things produced will all be wanted at some time, but they have been produced too fast. The railroad iron, timber, road-beds, and rolling stock, constituting the railroads, will nearly, if not quite, all be wanted in time ; they are not unproductive entirely, for most of them pay something over running expenses, and would pay therefore *some* interest on their debentures, and in many cases some dividends, were it not for the enormous cost of construction. Under a sound monetary system many of them would not have been built so soon, and some would not have been built at all ; or at least not built until there was a greater demand for them ; but by far the larger part would, as I be-

lieve, pay if their capital and debts were reduced one half. The remainder would then represent what they ought to have cost under a sound monetary system. Again, the "crisis" has developed a large redundancy of woollen cloths, cotton prints, furniture, lumber, and building materials, and the redundancy appeared clearly after the bank panic of 1873, although there were signs of it before that time. In many articles, in the production of which no redundancy appeared for some time after 1873, it has appeared since: the latter phenomenon arises in part from the fact that at the turn of the tide in 1873 a redundancy existed and would have continued, even if all classes of consumers had continued to consume at the same rate they had been for some time consuming; but after large bodies of consumers, who had been laborers or producers themselves, were turned out of employment, their ability to consume was taken away in great measure at the same time with their ability to produce: and their inability to consume, added to the decrease in consumption of other classes, has helped to continue the redundancy. Thus we have redundancy, prior to 1873, of production as against consumption of all classes, and since that time increased economy of consumption in all classes, and in some loss of ability to consume beyond the bare necessities of life, operating together as co-factors to intensify and prolong the redundancy. Increased economy in the consumption of foreign goods, shown by imports, and in the consumption of domestic goods, demonstrates then, not only that we are making great savings to offset former extravagance through the classes who, though still continuing to produce, have economized their consumption, but also the further fact that much of this apparent saving consists in the non-consumption, not of those who are able to consume but are at the same time induced or compelled to economize, but of those who can hardly be said, as compared with their consumption in the period of progressive production and expansion before 1873, to consume at all. In other words, we have had on a national scale overproduction, or redundant production of those articles not necessary to sustain life, and

therefore pertaining only to artificial or civilized life, as compared with those articles which all consume, and must always consume in the same average quantities in order to sustain life. Of these latter articles, although there may be as to some occasionally a temporary glut, there cannot be an overproduction, because the annual production is nearly balanced by the annual consumption, and the production and consumption increase in harmony with the increase of population. In countries where the limit of production has been nearly reached in agriculture as now carried on, importations must make up the deficiency. The production, then, of these staples of existence is the basis, and the inexorable limit, of all other production, and so of population. The United States may continue to produce everything required for the artificial wants of civilization until the limit of production (through agriculture) is reached; and further, so long as they take the hazard of finding foreign markets for their manufactures, and find them. If they find them not, their capital and population are at a stand and progress no farther. England has taken that hazard and largely succeeded, but the outlook is not promising, and unfortunately her productive powers, like those of her hitherto great customer the United States, instead of being left to regulate themselves by the inexorable law before mentioned, have been artificially stimulated, and are now suffering the resulting collapse which extended to both countries. The cause in both countries lies in the banking system, causing a redundant production through redundancy of paying power applied to labor through bank-notes and coin, and perhaps in part the instrumentality of small checks. The producing power resulting from this paying power, and ending in redundant production, was carried in both countries to an excess which has stopped at the inexorable limit, — production to meet artificial wants in excess of the production of the absolute necessities of life in the two countries, and in those with which they respectively trade.

As the production of absolute necessities cannot be stimulated to a point in excess of population, and as the produc-

tion of things to satisfy artificial or civilized wants is now on all hands admitted to be in excess of population, it follows that it is equally in excess of the production of absolute necessities. Redundancy of goods can only come from redundant production; redundant production from redundant labor applied in any given department of industry; redundant labor from redundant money applied and used in that department; and redundant money from redundant bank loans, because through bank loans in the first instance is the money obtained. Redundancy of money in any particular department of industry, or in any particular place, as shown in the analysis of redundancy, ends in a crisis, bankruptcy more or less extensive, fall of prices, and inability to make sales. It was caused in Germany of late through the money and circulating capital furnished by the French indemnity, and the multiplication of banks. Berlin began to look like a city of palaces, and labor doubled in price; but all this has come to an end, inflicting losses through the misapplication of productive energy beyond the figures of the indemnity, and, morally speaking, losses that cannot be estimated. France, in opposition to England, presents the case of a country whose production is in equilibrium. She has great productive energies, and in respect to the inexorable limit to all other existing in agricultural production, she is sometimes slightly on one side of the line and sometimes on the other; and as she must have arrived very nearly at the limit of agricultural production, and her other production is not in excess—as she has no monetary and industrial crises of her own, and suffers only indirectly from those of other countries through international commerce,—it follows that, although a country possessing the soundest monetary and industrial condition of any country in Europe, she has arrived very nearly at the limits of population; and such seems, from her statistics, to be the case. If M. Wolowski and his friends could have induced the French people to overcome their prejudices, and establish and give custom to savings and commercial banks after the English and American pattern, they would have given a new impetus to production; put

population again on the increase; introduced Frenchmen to an acquaintance with panics, and banking and industrial crises, and disturbed the present and the future annual distribution of the precious metals; changing, for the three countries, the existing relative proportions of one half to France, five sixteenths to England, and three sixteenths to the United States, to one third each for the three countries; producing an advance in prices, equivalent to the effect of a very large increase in the production of the mines.

CHAPTER XXIII.

FALLACY IN THE USE OF THE TERM BANK DEBT, OR BANK CREDIT.

THE founders of the Bank of England, British and American writers generally, and Mill and Professor Bonamy Price in particular (because the writings of the latter two have probably had a good deal of influence in the United States as well as England, from their extensive and thorough discussions of the subject of credit), are mistaken in denying that bank credit is money, or rather, in affirming that it is only the equivalent of mercantile credit to the depositor. It is only a question of words, I admit, but I have just shown how great a fallacy is concealed in the word *Intrinsic*; and there is undoubtedly as great a fallacy in the use of the word *Credit*, or what is on the other side the equivalent of credit, *Debt*. Credit to the depositor is debt to the bank. If a depositor buys anything, or pays a debt by assigning or transferring his credit by means of a check, the credit is the same as gold coin, because it puts gold coin in circulation. The credits of people in the hands of a merchant, and the latter's notes, might, it is true, be used as money in the same way as well as bank-notes; but if any credit by entry or note could have an actual circulation as money, it would raise prices precisely as the same amount of gold would, but not in the character of *credit*, and therefore only as *money*. A fallacy lies in supposing, or taking it for granted, that units of credit in bank cannot be money. They cannot act in both capacities at the same time, certainly; but whenever they accomplish full payment by virtue of a general use or conversion, they will be truly money, as bank-notes are.

The existence of this fallacy is the reason why inflations

take place in prices to such an extent as to allow an overstock to occur; not through actual increase in the total, but in the circulation of money. Whoever has a deposit has a command to that extent over the field of production by loaning bank credit, or bank-notes, or by using the money himself in production; and it has never been possible hitherto, either in England or the United States, to circulate credits, notes, and gold, by means of loans and checks, out of this immense consolidated fund, so fast, that they might not have been circulated much faster had not the overstock raised interest and cost of living so high, and carried the locking up of capital in overstock so far, that a crisis came long before the greatest abstractly (not practically) possible circulation had been reached. It is immaterial whether we suppose notes and gold, or only the power to circulate them, to pass. The fallacy lies in taking it for granted that there is something intrinsic in gold, or gold and silver, which neither bank-notes nor bank credits can possess, when bank-notes, although mere debt, circulate as gold, and take the place of so much gold. This fallacy must be got rid of before we can have a science of money and circulation, the complements of production, exchange, and consumption, and before we can place the cause of overstock on scientific ground.

The next step will be to find out, if possible, a remedy; and here is an important fact to notice: the popular idea that either metal or a "metallic basis" is requisite for a currency, in order to prevent variations in prices, is sound; but why it is requisite people are not aware. It is requisite, chiefly, to prevent an overstock; it is useful because it is distributed over the commercial world, is comparatively indestructible, and, finally, in case of loss of productive power, loss of crops, etc., in any country, it goes so far, either permanently or temporarily, to other countries. Above all other considerations, it cannot be produced so as to make money units increase in excess of production and consumption, that is to say, of commerce; if it could be, and were produced in excess, it would be unsuitable, either as money or the regulator of the volume of money units of any other

kind of money. Its superior utility, then, and its adaptation to the end sought, are the reasons, and the only reasons, why it is better than any other money in either of the capacities named. There is less danger of loss by it simply from the fact that banks and governments are more likely to fail than the whole commercial world ; one government is more likely to fail than all governments, and the elements will not be likely to destroy the metal as they might paper. The same principle, however, underlies all currencies. If gold were universally demonetized, and silver universally monetized, all governments would be bound to redeem the gold with silver, — not to prevent national, but individual loss, — because the nation could suffer no loss by any demonetization ; and if an international currency, issued in certain proportions in paper by all commercial governments, and increasing and diminishing in perfectly exact proportion to international and national commerce (even gold cannot maintain that exact proportion), were possible, as it is not, and apparently cannot be, governments might then be called upon to redeem gold or silver with paper. Hence it follows that inasmuch as the utility of gold as money, and therefore as a limitation of any other currency, consists simply in the fact that it increases annually in the shape of coin more nearly in proportion with the increase of commerce than any other substance we know of could ; if gold is piled up in banks in reserves in uncertain quantities ; can be bought as merchandise and taken from one country to another ; and if a demand for it by any one country is always for gold as merchandise and not as money, it is so far subserving no such useful purpose. A want of harmony in production is the result, because the regulated currency of credits and notes is not in any true sense convertible.¹ The want of harmony shows itself in an excess of articles only relatively as against those absolutely necessary.

¹ See *Banker's Magazine*, May and June Nos., 1875, pp. 876, 963.

CHAPTER XXIV.

COMPLEX NATURE OF MONEY.

OF all subjects involving human action, that of money is the most complex. To comprehend, to investigate, and to demonstrate the leading truths of a complex subject, requires a careful examination of all the elements whose separate or combined action produces the phenomena. Money is the grand power which lies at the very foundation of all society, because, without it, production, the source of all human progress, and commerce, the distribution of all products, would come to an end. The exceeding complexity of the subject, strange as it may seem, is the very reason why, by some writers upon money, it is declared to be very simple. There are so many angles of observation from which it may be viewed, that the result has been that the obvious and noticeable angle has been supposed to be the only one; the remote and masked angles, to be found only on careful and rigorous analysis, not being discovered. This defect of sight gives rise to theory, and the theory hitherto is all one and the same. That theory is, that gold and silver coin are commodities, and that a bank deals in credit which is like the credit of tradesmen or merchants. This theory irresistibly leads to the conclusion that when, in point of fact, general prices rise by money put in circulation through bank loans, they rise by excessive buying on credit, and fall because the investments are unproductive.

This theory I admit to be true, inasmuch as it contains an important part of the truth; but I affirm it to be also false, inasmuch as the premises upon which it is founded assume to contain all, while they contain only a part of the truth. The total of bank credit in England is the difference be-

tween the total of bank reserve and the total of bank debt. This is also the sum total of bank debt over and above immediate or cash means of payment, as well as of bank credit belonging to depositors over and above the cash which belongs to them in the reserve. Viewing deposits as bank debt only, the reserve may be said to belong to the banks; viewing them as a deposit only, it belongs to the depositors.

When clearings take place without the appearance of a single coin, and when in the same bank transfers of credit, are made from A. to B. by check without clearing, they *look* like the debiting and crediting on mercantile books; but the appearance is deceptive. Mercantile credits and debits, where no money passes, arise from sales of merchandise on time; bank loans are loans of purchasing and paying power, to buy all merchandise already finished and ready for consumption, or labor and materials. Bank checks transfer to sellers the right to money in bank in payment for merchandise sold, or to banks in payment of loans. In the latter case there is a return to the bank of the purchasing power loaned. Now credit is giving time on sale of merchandise, and it can exist without money; payment can only be made with commodities or money. But full payment is made without the use of commodities, and with something in bank; therefore, if what *seems* to pass in such cases is that which *really* passes, bank credit thus used is either a substitute for money or money itself. It cannot be the former, because a reserve is always kept; and when there is not money enough in the reserve to cover the balance called for the bank fails. What really passes, therefore, must be the money in the reserve. The money in the reserve passes quite as effectually in clearings as when it is handed over in gold sovereigns and silver crowns, half crowns, and shillings. If credit passes in the first case, it must in the second. But I have said there is truth in the assertion that credit is used in some form. It would be more correct to say that there is an approximation to the truth only, because the real credit in the case lies in the manner in which the money loaned is expended, leaving for an indefinite period an expansion of bank credit (in other

words, deposits) created by the use of the money loaned while the reserve is not proportionally increased, but is, on the contrary, diminished. This is the real credit in the case, and all of it; and it is a credit productive of momentous consequences. What is needed in respect to an exceedingly complex subject like this is absolute precision; but it is one not found in the treatises upon production and exchange. In fact, precision is impossible without rigorous analysis. I affirm, therefore, that the total of bank debt over and above reserve is the amount loaned to consumers in advance of possible production, and to producers in advance of possible consumption over and above the loans, and therefore the consumption and production which would take place in the absence of banks. Here lies the real credit in the case. I will first demonstrate the proposition in a general form, and then by a rigorous analysis. To pay the total of bank loans would require a sale of services, commodities, or merchandise to productive consumers, equal in value to the total of bank loans. The money being paid into the reserve would cause the total of reserve and deposits to coincide, and bank debt over and above reserve would be abolished. Hence payment of all bank loans would abolish all bank debt, and at the same time the fallacy that it is like other credit. The contraction in this case would come from circulation outside of bank and payment into bank reserve. The active cause of the contraction would be sales for cash. The production of the merchandise, when it took place, required *in advance* payments of cash for labor and material, and the cash came through bank loans, and therefore through a credit draft on bank reserve. But this contraction does not affect depositors, except as to the amount of the grand total of deposits. Their loans which they make to producers and consumers are independent of those made by the banks, except those they make out of interest and profits paid over in advance of consumption. The banks are only the instruments by which their loans are made. The payment of money on loans made by banks, either directly to consumers or indirectly by discounting the paper of retail merchants given to wholesale

merchants or jobbers, requires, as a first condition, sale of products by the retail merchants to buyers. But a contraction of the bank expansion caused by these loans takes place annually; therefore progressive expansion must come from increasing volume of merchandise not sold, and hence not consumed, and from that only.

DEMONSTRATION BY ANALYSIS.

A more complete and satisfactory demonstration is furnished by analysis. The real and only bank credit given borrowers is, first, as original producers, who produce by the aid of bank loans out of bank reserve for practically indefinite periods, faster than they can sell for consumption; and secondly, as consumers, who in the character of buyers at retail purchase in advance of production, and sell their products at certain seasons immediately after marketing crops. The buyers of the crops by the aid of bank loans take the place in bank of the jobbing or wholesale merchants, who are thus enabled to this extent to pay their loans. The expansion of circulation, that is to say, the putting money in circulation, by means of bank loans made to wholesale merchants, jobbers, or commission merchants, on discount of bills or notes given by retail merchants, who sell directly to consumers, three fourths of whom are agriculturists, is retired for the most part annually by sales of crops: the annual contraction nearly balances the annual expansion.

The progressive annual expansion of the production of relative necessities, over and above this and all other annual consumption, is the grand cause of the progressive rise of general prices until a reaction takes place, a commercial, industrial, and banking crisis comes, and the cycle is completed.

To comprehend and follow the analysis I am about to make, the true nature and functions of money must be first understood, or at least assumed for the present and until the analysis is completed. The value of money is conventional, that is to say, so long as the money is used as money: money is not an end, but means to an end; and that end is

primarily the exchange and consequent distribution of the fruits of labor and capital *after they are produced*. Hence the end of money is the exchange and distribution of all things which can be exchanged, exclusive of itself. It is therefore absolutely impossible for money to be a commodity while it is money : conventional value cannot be real value. Hence metallic money must be divided into units of weight, the conventional value of which must be directly proportioned to weight ; and when there are two metals in use, the conventional value of the units of one metal must be to those of the other for equal weights inversely as the weights of the respective masses of each metal in coin. This is the law, upon the supposition that the two metals (and it would be the same if there were three or more) are equally and everywhere material for money and freely coined. The law varies as the use and the distribution of the metals as money vary.

Money is, therefore, *necessarily* a unit of valuation, purchase, and payment. The title to the unit, and the purchasing power which accompanies it, pass by delivery of coin or bank-notes to every successive holder. Adam Smith compared money in use to a bill of exchange accepted and re-accepted by every holder, being also an assignment of the holder's right to commodities purchasable with the money.

This comparison is good, but, like most comparisons, imperfect. If the reader is unable to divest himself of the idea that money is a commodity, let him aid his understanding by calling it a substitute commodity. Thus, if we suppose the use of money abolished, and commodities exchanged directly for each other, there can be no exchanges for consumption without production, and, on the other hand, no production without exchanges for consumption, except to a very moderate extent. Occasionally an article may be borrowed to consume, and here there would be for the time consumption by the borrower, in anticipation of his future production and delivery of a like article to the lender. On the other hand, a producer might have some accumulation of products beyond possible sales, and might borrow other prod-

ucts, such as the necessities of life, to a very limited extent, in anticipation of future exchanges of his products for those necessities, and the return of the latter to the lender. This excess of production would be very limited, because such necessities could not long be procured in this way, and for the equally sufficient reason that the stock overproduced would immediately depreciate through excess. General overproduction being impossible, partial overproduction must therefore, on the average, be impossible: the grand system or machine of exchanges must on short averages have harmony in its various parts. If one man produces too little to meet the demand, and still borrows to support himself, he cannot borrow long: if another man produces more than he can find consumers to exchange with, but borrows from them in order to live while he is doing it, he cannot go on producing to this excess long. He must stop and exchange what he has already produced, even at a loss, and borrow less, and so produce less at a time, in the future. By so doing he will on the average produce as much as he could before, and he will do it without loss. On the whole, under such a system of direct exchanges there would be nearly uniform production and consumption; and so the price of every commodity reckoned, by way of barter, in the commodity for which it is exchanged would be uniform and steady. But let us suppose for one moment that all producers under this system, including the tillers of the earth engaged in producing the absolute necessities of life, can, in consequence of the accumulation of capital and therefore means of subsistence, borrow freely all the commodities they choose. An excess of the necessities of life is still impossible, because population keeps even pace with them, and they are annually consumed. The producers of the absolute necessities of life are therefore not only enabled, but even compelled, by selling all they produce, to pay up annually, while the producers of other necessities are accumulating overstock. There is a limitation, however, to this accumulation, and it ends with a sale of the overstock for what it will bring; but before it comes the *exact amount of the*

overstock is indicated by the debt the producers of it owe to the producers of absolute necessities, as shown by the books of the latter. This is an expansion of production on one side only, and it is also the exact measure of the debt due from the producers of it to their bankers, the producers of absolute necessities. This debt has no objective reality, any more than ordinary bank debt. It is not the loans themselves, but one of the results of loans. Let us now introduce money in the shape of gold and silver coin, and call it a substitute commodity, universally receivable in place of one of the two commodities heretofore exchanged for each other, and *as a substitute for it*, and see how exact is the parallel. Before the introduction of money there were always two commodities, and each was exchanged for the other, the units of each of the commodities being valued in those of the other. Precisely so is it now with money and the commodity it is exchanged for. The units of the substitute commodity, money, value those of the real commodity, and those of the latter the units of money. But money being the universal substitute, it necessarily follows that all values, abstracted from the exchanges actually going on, are expressed only in terms of units of money, and the real forces in operation are thus more or less masked. But the substitute must be given twice in exchange for a real commodity before there is evidence that two commodities have not only been produced, but are about to be consumed; and the exchanges of the substitute commodity for labor are not exchanges to meet the *wants of consumers* until the products of the labor are sold. Prices are as steady as they were when commodities were exchanged directly for and valued in each other, if the products of labor are sold as soon as before. And why steady? Because there is no greater volume of loans, and therefore of production on credit. But although some loans of money are made there are no banks, and the money is entirely metallic. If there were a perfect and completely even distribution of wealth always existing naturally, admitting its possibility and the possibility of its continuance, there would be no loans; human progress would

be impossible, and the social system would stagnate. But such a distribution is impossible, and hence accumulations of capital follow. Increasing productive capital brings increasing real commodities, and the necessary exchanges of these for the substitute commodity money bring a corresponding supply of the latter. The capitalist cannot use all the latter in his own consumption, and therefore lends the surplus. To whom does he lend? He can lend only to those first producers who originally produce commodities, or, what amounts to the same thing, services; or to the second producers, who are merchants, and who are thus enabled to exchange the substitute for the real commodity, and the latter with the consumer for the substitute commodity again, returning the latter to the lender.

Now comes an expansion of production in certain quarters in advance of production in other quarters. This expansion of production is absolutely necessary for the expansion of commerce, to an extent sufficient to satisfy the increasing wants of civilized man. It arises from loans of the substitute commodity money from the capitalist, and exchanging it for labor and perhaps a real commodity in the shape of raw material previously produced by labor. Production of the absolute necessities of life cannot expand beyond, or in advance, of population; that of other necessities can, but not, in the absence of banks, to an extent much in advance of wants and ability to exchange, because money and commodities are distributed together; and hence the price, or exchangeable value of the substitute commodity money, remains steady, because that, of all other commodities, remains so. If the price of the substitute commodity should rise, however, it must make that of all real commodities fall, because it is a universal substitute for all commodities; if its price falls, on the other hand, it must raise the price of all real commodities for a like reason. Being a substitute commodity, exchanged only for the purpose of effectually distributing all other commodities, and having no other use whatever, it necessarily follows that as it is never consumed itself, its price, reckoned in real commodities of all sorts, will

depend upon the quantity of it used to effect the distribution, and not upon the quantity in existence. Real commodities are not loaned now as before when barter prevailed, because they are wanted only at the time they are needed to consume; but the substitute commodity can be loaned just as often as it comes back into the possession of the lender. It never can come back out of loan except as it is exchanged for commodities which are wanted for consumption, and therefore not far in advance of it. Loans are therefore made to *producers*, and paid only by *consumers*. In the absence of banks, and with a metallic currency, as soon as the producer has borrowed all the money which is to be had, he can borrow no more until and as consumers pay him, and he pays the capitalist; and so thenceforth his loans are measured by the demands of consumers, and this will cause a regular flow of the substitute commodity money into and out of his money reserve.

But with banks, if we now suppose them to be introduced, and to do business as they do in England and the United States, without any definite limit beyond which none can make loans (a definite ratio of reserve to liability is the only practical limit universally attainable), no such limitation exists, but the loans are necessarily in an ascending scale, up to a crisis. The current of loans being continually and progressively either in excess or defect of the return current of payments, the substitute commodity money is being continually exchanged for raw material and labor in excess of consumption, without any possible limit but that of a crisis. Take a country of great industry like China, where vast amounts of the substitute commodity, silver money, are kept without loaning, and there is no expansion of production as in France, where loans are made by capitalists. In a country like France, where banks have not been established, there is no expansion of production as in England and the United States, with banks which make a loss of deposits in one bank through loans to producers a foundation for loans from another bank to other producers, in consequence of the resulting redeposit in another bank. Under no other system

of loans but bank loans, without a regulated reserve, is this possible. Bank No. 1 loans to A., and he pays out the money for labor and pig iron, and produces iron bars or rails : the laborers who produced, and the sellers of pig iron, either directly or indirectly by the agency of others, redeposit the proceeds of the loan in another bank, and perhaps partly in a savings bank. The bars or rails produced by the loan remain unsold *for cash* ; but the redeposit of the money loaned is the immediate cause of another loan for the same purpose by bank No. 2 ; and thus, if bank *credit* has been increased through the loan in bank No. 1 to the amount of ten thousand dollars, it is increased in bank No. 2 to a like amount, by redeposit, before a single bar or rail has been sold for cash. The permanent or indefinite expansion of what is called credit in bank No. 1 and bank No. 2, therefore, is not the *cause*, but the *effect* of the expansion of production in advance of cash sales. The credit on the books of the bank is nothing in itself, any more than millions of buried treasure, until used by the borrower ; and the only active and real purpose for which he can use it is to produce, and when used, the important movement is the production on credit which results. But, in order to produce, he must pay for labor and raw material ; and to produce the raw material in the first instance requires also payment of labor. His loans, therefore, if we trace them back and subject the whole process to rigorous analysis, are mostly expended in the shape of money actually taken out of the reserve, and paid out for labor, and not in the shape of credits transferred by check. The expansion of what is called, and what I, for want of another word, call circulation, takes place, therefore, by payments of actual cash to labor, to produce merchandise that largely remains unsold for an indefinite period, and by that very fact progressively increases and indefinitely continues what is called Bank Expansion.

Bank expansion, on the face of it, is only an increase of bank debt by recorded drafts upon the reserve. This is the surface view of the process of bank expansion to everybody, and the only view of it possible for those who will neither

analyze nor follow analysis. Analysis shows us that bank expansion is impossible except as the result of the expansion of production beyond possible cash sales. Bank credit is the *result* of the expansion of production which goes on outside of banks, and which, in the very nature of things, must have its limits. The efforts of all the banks in the United States and Great Britain combined would be powerless at this time to stimulate production, and therefore commerce, beyond its present volume. There is abundance, and more than abundance, of money in bank reserve in either country, and the elements of bank expansion are as great as ever; but the circulation out of bank still shrinks and contracts in volume, and precisely as consumption advances beyond production the reserve is increased. The investment of money loaned, in labor and material, then, in order to produce, is substantially the exchange of a commodity having only conventional value, which may also be called a credit value, for a commodity which is not yet certain of a market, and which the producer has only an expectation of selling. The unrestrained, and therefore unlimited, power of making such investments necessarily raises the price of all productions, including those which are thus in temporary excess. In the absence of money loans, if loans could be freely made in the shape of the necessities of life from capitalists, they would act only on those necessities by way of raising prices, and on the commodities produced in temporary excess by way of lowering prices. They would depress the price of the latter as much as they would raise that of the former; under the use of the substitute commodity called money, the price of that part of the commodities in excess, whether sold to actual consumers or to merchants in expectation of resales, necessarily rises, as well as that of the necessities of life. But when the crisis comes, then the natural law of depreciation in the commodities in excess, as compared with those not in excess of population, and therefore of consumers, comes into full play, as we now, in 1877, perceive to be the case with bar and rolled iron, cloth, etc., on the one hand, and wheat and provisions, on the other, independently of the rise caused by

the pending war in Europe and Asia. Hence I affirm that I have demonstrated, both directly and by rigorous analysis, that bank credit, as distinguished from money, has no objective reality. Economically speaking, it is but the shadow cast by that production on credit which is maintained by bank loans.

The real credit, in its inception, is the exchange of the substitute commodity money, not for a commodity intended for immediate consumption, but for labor and raw material, while the necessities of life are being actually consumed by all the laborers, — first, those who produce, and, secondly, those who work up the material, — whose product is not all certain of a cash market, while all of the necessities of life are. The creation of this unbalanced product, in hope and confidence and actual belief, through rising prices, of a speedy market, is the real credit, or rather production on credit, which, as long as it lasts, is the cause of bank expansion and contracting reserve, and when it comes to a violent end by a crisis is followed by bank contraction and expanding reserve. The enormous prices paid a few years since for British railroad iron of poor quality, and for rolling stock, the enormous discount on railroad debentures, the inflations in volume of railroad stocks without a corresponding increase of capital, — if they could now be contracted to average figures, as production and bank credits have been and are being contracted, would place many of them on a paying basis. If production and wages could be averaged and brought to steady rates during the periods of rise and fall in both, by a regulation of the use of the substitute commodity called money, more men would be at the plow and less at the loom and furnace; aggregate wealth would increase; there would be fewer great fortunes, and a state of exchange and distribution more like that of France would be found in the United States, and to a considerable extent in England.

WHAT BANK CREDIT MIGHT BE.

Because the value of money is altogether conventional, bank-notes convertible into metal take the place of metal

itself, and have precisely the same effect as a like amount in metal, and are thus said to economize the amount of metal required by precisely the amount of notes. In a different manner, through the use of a series of consolidated reserves called deposits, the quantity of metal required can be economized to any extent, subject only to one proviso, — that metal enough shall always be on hand to meet every call made; if withdrawn by check, it shall be always redeposited, so as to be on hand in sufficient amounts for that purpose. Such, with few exceptions, is the case, and as a general rule there is a considerable surplus to spare. Bank credit, as well as bank-notes, could be used without any reserve at all but the credit itself. The credit could be circulated by the instrumentality of checks in the character of units of credit. Whatever can be circulated outside of banks can be deposited in banks, for deposits can only arise from circulation. In such a case expansion in prices might be carried farther than with convertible bank-notes or gold, although the principle would be precisely the same. Bank expansion is one and the same thing in all cases. It is always and everywhere expanded production outside of the necessities of life by the aid of bank loans. It is expansion of production on credit and expectation of a market, under the deceptive influence of an apparently rising scale of prices. Whether bank debt is convertible or not, the expansion is one of production above average by the use of the circulation of money without limit to pay for labor or services in respect to those things not absolutely necessary to existence. If everybody could conveniently use bank credit as money, and pay it out by check, — even if the use of metallic money were abolished altogether, — bank expansion and bank contraction, and the effects of the expansion and contraction of production in the quarter just mentioned, would be the same as now, because if all production were harmonious bank expansion could not exist.

Buying, say Mill and Price, and all the modern writers upon money, is the cause of ascending prices, universally. Expansion of production, say I, is the *first* cause of the rise

of general prices, and contraction of production the *first* cause of the fall of general prices; diminished ability to consume and diminished demand being effects, in the order named, of these causes. Mere buying of any one article on speculation and keeping it out of market will, independently of the cause named, raise the price of that article, undoubtedly; but what I am now examining is the general movement of production and prices. These writers are looking at the stream of distribution through commerce. I am looking at the grand fountain and source of supply. Credit on a general scale, no doubt, follows the increased credit which moves production. Production and commerce are the great business of the world, and in them lies the original cause of commercial crises. When they are expanding, — and they expand together, — credit of all kinds expands with them. Town and city lots rise in expectation of purchasers; railroad stocks rise by reason of enlarged traffic; the stock of manufacturing corporations rises by enlarged and apparently profitable business. But the collapse is inevitable, and the grand problem of the time, demanding solution with every recurring cycle of contraction following expansion, is: How to put laborers at some employment where their services will always be needed and their wages steady, and how to produce the relative necessities of life abundantly and at the same time so steadily that they will always be in harmony with the absolute necessities. This can be done, so far as it can be done at all, only by a limitation of bank loans through a regulated reserve, as I have demonstrated in various forms in other chapters. There must be some fixed point beyond which loans cannot go.

SUMMARY.

I have thus *demonstrated* that bank credit has no independent existence, and no circulation of itself. What causes bank expansion is expansion of production in certain quarters in excess of expansion of production in other quarters; and what causes bank contractions is contraction of production. As production expands, it necessarily follows that

rates of interest expand, and as it contracts, that rates of interest contract ; and such we find to be the case in point of fact. Money may be conceived of as a substitute for *one* commodity in all exchanges, inasmuch as it is never wanted for consumption ; and in England and the United States it forms a series of consolidated funds or reserves, belonging to individuals and deposited in banks, to a large extent, while all the banks are, by their connections, virtually consolidated into one bank, having in their vaults a large portion of the money capital of the whole country. It follows that a small reserve will answer all calls, while the actual circulation outside of the banks is mostly made up of bank-notes. There is no practical limit but a crisis to the possible expansion of loans. The substitute commodity money is constantly returning through deposit into bank, after it has been loaned to pay for labor and material, whether the product of that labor and material can be sold or not, and thus becomes the source of further loans and of bank expansion. If the product were sold as fast as the money is returned into deposit, an even ratio of reserve to liabilities would be maintained. Because the product progressively accumulates, the reserve and therefore the ratio of reserve to liabilities progressively diminishes. Until this law is perceived and fully understood, but little progress can be made in Great Britain and the United States in the knowledge of the science of Production and Exchange. It is impossible for deposit reserve to increase, as compared with bank debt, any faster than consumption goes on. There will be always an increase of what are called deposits, as loans and therefore production increase, but not of reserve.

Were there no loans of money, there never could be a commercial or industrial crisis. If loans, when made, were never used to pay either directly or indirectly for labor and material, but only for finished products ready for the consumer, there could never be such a crisis. It is the exchange of the conventional commodity money for labor and material, to produce things not absolutely necessary to existence, by means of loans of money, faster than these find cash

buyers, which produces such crises. If every capitalist were compelled to keep his money in his own possession, and could make no loans, all the money coming into his reserve would, of course, come from consumers, and all the money paid out by him would be paid to producers, for the purpose, not of enabling them to produce, but only to enable him to consume, to satisfy only his own wants and that of his dependents. The strong tendency of production outside of the necessities of life, increased by the great improvements in machinery and locomotion of modern times, and in England and the United States by great energy and skill, to advance beyond the production of absolute necessities, *is not the cause of excess*, but one of the causes which renders excess possible. The loss which immediately follows excess, in point of fact, is for a time masked; and not only masked, but up to the time of a crisis is made to appear profit, through rising prices caused by the excessive use of the conventional commodity money to pay for labor and material. Without a conventional commodity, all exchanges would require two real commodities, and there could be no exchange of commodities for labor but to a very limited extent; and never much beyond the immediate wants of the consumers of the products of that labor. The use of the borrowed conventional commodity money in exchange for labor, largely in excess of that limit, is of itself *a credit*, and, when carried to the point of an industrial crisis, an excess of credit, but it is a credit arising from the use of money. The prevention of that excess, by stopping bank loans everywhere at a certain point, and thus approximating to the steady prices of a metallic currency without banks, as we see in France, where production is, on the whole, except as indirectly affected by foreign countries, so evenly balanced, is what I have discussed in various forms in this book. The prevention will operate, first, by stopping loans after a certain point; second, steady and uniform prices will give steady wages and harmonious production; for, under steady prices, inharmonious production is impossible.

A merely commercial crisis may occur on a large scale, as

commercial crises have occurred, no doubt, from the use of personal credit in respect to one or more articles of commerce in time of peace ; it frequently occurs in time of war, and large amounts of private paper may grow out of such transactions. In such cases, production in the hands of first producers may or may not be more or less stimulated, and thus intensify the glut and recoil of prices when they arrive, as they inevitably will ; while consumption, checked by advancing prices, contributes to the same result. But these commercial disturbances, although serious, are not the grand and ever recurring crises, such as I have described, which, through bank loans and increased circulation of money, raise *all* prices, while the expansion of personal credit through sales of merchandise raises only the price of that merchandise. Whatever increases the total circulation of money as compared with the average total of commodities actually distributed and consumed, raises the prices of all those commodities. Hence the forcible disturbance of the distribution of the precious metals in the shape of coin, frequently occurring in war, as in the time of the Roman empire, when vast treasures were collected from vanquished nations in the shape of fines and tribute, and of late in Germany, by the remittance of large sums from France, raises all prices. It takes the money from the places where commerce has distributed it and leaves it where it ought not to be distributed. Such distributions are a curse instead of a blessing. Where there is productive power to stimulate, as in Germany, they stimulate it, but they invariably stimulate too much, and at the wrong time. Advancing prices, although but a phantom, stimulate the energy of production, sometimes perhaps advantageously. Of all the stimulus ever applied in this way, the most potent was that of the bank and government inconvertible paper, applied in the United States for the past fifteen years by the gigantic instrumentality of bank loans. In the history of the world production was never so stimulated before. Could the war have been carried on without these issues, which gave government credit, really at times more than fifty per cent. below par, the appearance of being

at par? Not only this, but productive energy was not stimulated in *appearance* merely, but in fact. This is the real benefit derived in war from the abandonment of metal, and a resort to bank or government issues of inconvertible paper when a great national struggle is at hand. England resorted to this policy with enormous gains in productive power: France resorted to it in her late war with Germany; but having no banks but the Bank of France, with a small deposit (the socially conservative habits of the people remaining), the expansion of circulation and of production was not greatly stimulated by their instrumentality, and the paper was largely retired by *rentes*; while in England, before the resumption of payments, the reaction from stimulated production was tremendous, and is now in the United States going on in a still greater degree;—the enormous volume of state, city, county, and town indebtedness, adding intensity to the burdens and the difficulties of recovery, while the vast army of operatives turned out of employment, because their work cannot be sold, presents a problem hitherto unsolved, and never before in the history of the United States calling for solution. The stimulus to production given by the issue of irredeemable paper during and after the late civil war, and up to 1873, has led some men of thought, and one able writer upon political economy in the United States, to urge the further issue of such paper, notwithstanding the fact that vast sums are now on hand waiting for borrowers, who never come. This is a monstrous fallacy, greater than that of those who believe money to be a commodity, and bank credit to be an objective reality, instead of the mere subjective result of production on credit expanded by the aid of bank loans. Money (scientifically viewed) is but a process; and when it has been used to excess, no matter how much of it may be offered, it cannot be used again until, the cycle of contracting production being completed, the expanding one is thus made ready to begin anew. No power on earth could now force producers, in the United States or England, to begin that cycle, because they would be not only actually, but also *apparently*, losing by it.

Nobody wants or could buy the increased product, should they produce it, and an increased issue of paper money, or of any other money, would only raise the price of the product higher than any consumer could pay for it. Should the United States be forced into a war of large proportions, and the act for the resumption of payments by the treasury be repealed, the draft thus made upon the number of the employed as well as the unemployed, and the increased consumption, might soon start production afresh, and raise prices by increasing the circulation of money through loans ; but this would only intensify the glut after the stimulus had been stopped. Of all the would-be friends, but real foes of the laborer, whether skilled or unskilled, the worst are those who have taken up the cry of more paper money, to be issued by the general government, and the repeal of the resumption act. What is needed, for the United States, is not to call more laborers (whether they are to be fed and clothed and set to work in England or the United States) to the production of pig iron, cloth, or building materials, but to force the surplus of them away as soon as possible from towns and cities to the country and the plow. What is called protection is not protection while prices are in a rising scale. Inconvertible paper money, issued without any limit assigned it in advance, would be a curse indeed. As shown in the chapter on English Banking, and in this chapter and elsewhere, inconvertible paper money, honestly issued without any reserve, might maintain steady prices if production were always steady ; but as production is not steady, the only way of using it successfully is to limit its circulation, as well as its issue, to the *probable* total of what it would be if regulated in volume by a fixed ratio of reserve in coin. Because production is not steady, this paper currency, without metal, could not give steady prices. Gold and silver are not wanted for themselves, but to make steady prices, and thus maintain steady production. Inconvertible paper is only tolerable when, in a great national struggle, the production of iron, of cloth, and of other articles outside of absolute necessities, will bear stimulus, and when government credit, other-

wise apparently below par, is thus apparently carried to par, or as near to it as possible ; and the real loss of government credit is thus masked.

In conclusion, it appears by the most rigorous analysis that what is called Bank Credit, or Bank Debt, under a convertible currency, is never paid out as a substitute for money : it has no function in exchanges. If it were really used as a substitute, there could be no such thing as convertibility by means of a reserve. Convertibility consists in having enough money at all times in the reserve, whether it consist of metal or convertible notes, to pay every demand actually made : whether actual deliveries are made out of the reserve, or saved by clearing, is immaterial. This I have shown to be not probable, but certain.

If there were no money, and if all exchanges, as well as all loans, were to still take place as they do with money, the production of pig iron, iron rails and bars, cloth, and building materials not actually sold, would be written up in the books of production of things borrowed (absolute necessities of life), to enable that production to take place, Dr. by the quantity x : money being introduced, the debt would still stand the same, and therefore may be also designated by x . Banks being introduced, the debt stands at $x + \text{Bank Loans}$. To eliminate bank loans would have the effect of crediting production by the amount of bank loans, which would leave x alone ; and x then represents nothing but loans of metal or bank-notes received from producing consumers whose products have been sold. This elimination comes by reducing the volume of production by the known quantity, Bank Loans ; and the *effect* is to make the volume of deposits and the volume of reserve to coincide, precisely as they did before bank loans were made. This coincidence is the immediate effect of paying metal or notes into the reserve, and hence the want of coincidence originally came from taking metal or notes out of it.

The expanding cycle of production through bank loans begins where the contracting one through bank loans ends, and the contracting cycle begins where the expanding one

ends. Bank expansion consists in loaning out of the reserve, and keeping in circulation, not that portion of the reserve which exchanges commodities for consumption, but that portion of it which is not needed for that purpose. Rise of prices, as already shown, depends directly upon the number of units of money which are on hand, to put into circulation, and the number of times they can be and are, within given periods, loaned to invest in production, for loans can be extended in no other way.

The truth is that the establishment of a fixed ratio of reserve in metal to the volume of bank debt, instead of the fluctuating one by means of which the metal in the reserve is now circulated without the limitations imposed by the actual exchanges of commodities, because used not only for that purpose but also for the payment of labor in excess of such exchanges, would utterly banish the idea that mere credit exchanges or pays for commodities. The real credit in the case is the use of depositors' money in excess of the exchanges of actual commerce. This is not all, for it results in the loan of money in the shape of profits and interest, supposed to be earned by actual exchanges, by means of depositors loaning money out of a credit fund, supplied by the credit fund of the banks.

The real credit, or the real debt in which banks deal,—whichever we choose to call it,—is the use on their own credit of depositors' money to loan to customers, in order to produce on credit in excess of the exchanges depositors' money, in the absence of all discounting, would show, and the payment out of interest and discount received in excess of those exchanges, of dividends and profits, which, in an economical sense, have not been earned.

CHAPTER XXV.

RELATIVE VALUES OF DIFFERENT METALS, AND COMMODITIES OTHER THAN METALS, USED AS MATERIAL FOR THE MANUFACTURE OF MONEY UNITS, IN REDEMPTION, EXCHANGE, PURCHASE, AND PAYMENT.

THERE are two schools of opinion upon the subject of relative value, as expressed in each other, of the two metals, gold and silver, out of which, with perhaps the exception of the short experiment of Russia in coining platinum, the money units of most nations have from the earliest period been manufactured. One school, founding its opinion on the *intrinsic value* of gold and silver as commodities, represented by their cost in labor, maintain that the relative values of gold and silver, as expressed in each other, fix themselves by what may, I think, be called a natural law of relation, and cannot be fixed by legislation: the other school affirms that the relative value may be fixed by legislation, while the value of either, relative to other commodities, cannot be thus fixed.

There seems to be a mixture of truth and error in the doctrines of both these schools, and the whole truth is not affirmed by either: the first school is misled by old theories, which are mere fallacies resulting from what is called the mercantile theory: their opinions are erroneous, not because they are, but because they are not practical: they are founded upon old abstractions, abounding in errors, and not upon facts, although they imagine them to be so; and surely there can be no true monetary science that is not founded on facts. The cost of gold and silver, as well as other commodities, is not, as I have elsewhere shown, represented by the amount of labor required formerly to produce, or now

to reproduce them. Rise and fall in prices is a rise and fall in the ratio of money in circulation to the total amount of goods bought within stated periods: the units in the denominator of this ratio are units of money, and the units in the numerator are units of weights and measures of things sold: *value can be expressed in numbers only*. A tendency to equality of compensation results from the competition of producers arising from necessities absolute and relative: comparative equilibrium is thus maintained. This law applies to the production of the precious metals: money is a necessity for civilized men: the money unit is a creation of the human intellect, and it is therefore ideal; but there must be some tangible, documentary, or recorded evidence of the existence of the unit in the owner's hands, and his right to use it. Gold and silver, being valuable commodities, have by common consent been used to manufacture the money unit for ages, although at this time silver seems to have been either directly or indirectly demonetized as to future coinage, except for subsidiary purposes, by most of the large commercial countries of Europe, leaving the East the principal customer. The utility of silver and gold in the arts is a quality only, not a tangible thing: it makes gold and silver relatively fitter for universal adoption as material to manufacture the unit: that is all.

Suppose gold to be the only material in use for the purpose named, and silver entirely, as it has been partially, demonetized. The chief value of gold now depends upon the mere fact that some material or some mode must have been adopted to furnish money units, and gold has by common consent been taken. Its value, therefore, is founded on a necessity supplied, through common consent, by its means. Its value is only *extrinsic*, — that is to say, it is equal to all it will exchange for, — and it is sufficient, be its mass greater or less, to circulate, or, more properly, through its exchanges, principally of commodities, and incidentally and occasionally of the capital which is an agent in producing them, to bring all commodities to market and exchange all capital when and as required. All that is required is, that its mass be suffi-

cient in size to make units enough for the circulation constantly going on throughout the commercial world, and this requirement it answers. Subject to the inexorable condition of making such a distribution, it is immaterial whether the unit weigh a pound or an ounce, or whether it be made so small that no subdivision is necessary. Thus the value of the unit is entirely conventional, and its actual relation to the units of merchandise not one of intrinsic value, after the old mercantile theory, but of *number* of possible units, after the weight of the unit has been fixed. It is entirely a question of numbers, because there is no natural monetary relation between any given weight of gold and any human want; the value of the commodity gold is merged in the value of the gold units, and a unit is worth what it will buy. "Intrinsic value" now appears to be only intrinsic fitness or adaptation to the manufacture of money units; but this mere *quality* makes the coin worth no more than the same weight of lead, iron, or copper, had either of these been of no greater mass and weight than gold, and adopted as the material.

In the next place, suppose silver adopted in addition to gold, and governments to merely assay and reduce to the form of milled cylinders both silver and gold, stamping only the weight on each. Gold having been adopted first (it is really immaterial whether we suppose gold or silver be adopted first) by weight, silver is adopted by weight; and, without regard to the question as to which is worth the most as a commodity, abstract from money, the relative value of the gold unit to the silver unit at once follows the relation of the weights of the respective masses of metal coined. The silver having been adopted in addition to, and not to the exclusion of gold, and positive law fixing no ratio between them, the value fixes itself upon the average by the following mathematical inverse proportion, and with approximate mathematical certainty, *i. e.*, £, \$, fr., of gold (same weight) : £, \$, fr., of silver (same weight) :: *Mass in coin by weight of silver* : *Mass in coin by weight of gold*. In point of fact, this proportion would be constantly changing its elements, because the masses would be constantly changing, and

the changes must first be known in the market before people can generally be apprised of them: still, upon the average, the proportion would be maintained with almost mathematical accuracy. But surely, upon the heels of this demonstration no "practical" man will say that this constant variation, necessary to make up the average, ought to be tolerated, if it can be avoided. Can it be avoided? Unquestionably it can. If England, the United States, Germany, and the "Latin Union" could demonetize silver, they can demonetize gold; and if they, or either of them, can demonetize either or both gold and silver, they can demonetize either in part, by giving a little more or a little less relative value to the one or the other. What common consent (that is to say, law) has done, it can undo in whole or part. It is only a question of policy, and that not debatable, because the advantage of a fixed, instead of a constantly vibrating, relation, is certainly too clear to require debate. Were gold and silver the material of coin *in every country*, the ratio might, under free coinage, be made 1 to 10. This would throw more gold into the arts, and the demand being met, the surplus, if any, would go into coin. Were copper adopted in addition to silver, the same law of proportion would follow; but the copper, if deposited, would probably perform most of the circulation, because the fallacy of the old mercantile theory of intrinsic value might retire as much as possible of the gold and silver coin.

But, whether retired or not, we should have the proportion — £, \$, *fr.* of gold or silver : £, \$, *fr.* of copper (of equal weight with gold or silver) : : Mass of copper in coin : Mass of gold or silver in coin. To make the proportion more striking, I have supposed, on the adoption of silver, a milled cylinder of silver, of equal weight with that of the gold pound, dollar, or franc, to take the same name with that of the gold, and so with the copper. Copper will never be monetized, however, not because the mercantile theory of intrinsic commodity value in gold and silver money is true, but because it is false. Copper, silver, and gold, all possess intrinsic utility, but only the latter two for the manufacture

of the money unit. Hence they alone are used, and thus alone acquire conventional value in that character.

Gold and silver certainly possess "intrinsic value" over copper to-day in a much higher proportion than that last given; but when they are all fully monetized their "intrinsic value" is greatly enhanced, as a rectangular piece of paper, duly authenticated, signed, and issued, becomes such by the issue. If the copper could now change places with the silver, the silver with the gold, and the gold with the copper, in weight, their relative values in the proportion would change in like manner. Therefore, the unit is ideal, and only made tangible in the gold, the silver, and the copper. There is no standard, because the unit is ideal. *Standard* thus resolves itself into a question of intrinsic quality,—of relative superior fitness in one or more metals, over others, to manufacture the unit. *Standard* is also a state of equilibrium, more or less perfect, between all branches of production, whereby the exchanges are duly balanced, and production and consumption maintained in harmony. From that state of the exchanges of commodities result steady prices and steady rates in the auxiliary exchanges of money.

Hence the school of "intrinsic value" is in error in affirming intrinsic value; right in affirming that relative values of gold and silver fix themselves, upon the average, when not fixed by law; and wrong in affirming that they cannot, subject to the demand of arts and manufactures, be fixed by law. The other school is right in maintaining that the law can fix the relation of value between the metals gold and silver, and wrong in affirming in general terms that it cannot fix the purchasing power of the precious metals in relation to other commodities, because it can fix the *relative* purchasing power of each. Were there but one metal in the case; were all metals but gold demonetized, legislation could not fix the purchasing power of gold as a whole; but adopt silver, or silver and copper, legislation can declare what gold, silver, or copper shall be relatively worth, so far as they are used as money. It can take from the gold and add to the silver or the copper: it can distribute the purchasing power

as it pleases, subject only to demand for the metal in arts and manufactures. The latter school is therefore substantially right. The paper or letter of Mr. Samuel Smith, president of Liverpool Chamber of Commerce, published in the New York Banker's Magazine, is a masterly step towards founding the science of money and exchanges *upon facts*. The silver question which he discusses is important, but the diffusion of sound ideas about money and exchange is more important. That sound ideas do not prevail is evident from the conduct of Germany. Great Britain and the United States inflicted upon the whole commercial world great injury by demonetizing silver without its concurrence.

But there is one question naturally arising upon the assertion I have made, that copper units, if coined, in pursuance of law generally established, would follow the law of proportion indicated. Why will they follow it? I answer: for the same reason that silver has done so. But why should either silver or copper do so? Because the supposed fact of intrinsic value in either gold or silver coin as money does not exist. It is absolutely necessary, in order to accomplish the purposes of a money unit, made tangible in metal, that a unit of weight should be adopted: if the three metals, gold, silver, and copper, are equally and universally adopted as money, no other possible relation between them can exist but that of relative weights of mass coined. If they were metals not used to make units of money, no such relation would exist, and each would be valued upon its own merits, and agreeably to the common law of demand and supply; but inasmuch as they are all material for money, no other relation but that of mass, or weight of mass, is possible; and weight having been adopted in one, must be continued in the rest, without regard to intrinsic value *as money*, for that is only imaginary. In like manner, except so far as necessity, absolute and relative, leading through demand, both natural and artificial, to consumption, changes the quantities of commodities all the time according to the demand for and supply of each, the same rule applies to the units of weights and measures of all commodities. The quantity in the

market for sale, and actually put on the market and sold, determines the number of units in the numerator of the ratio which gives price, and the price of each is naturally apportioned, through the units of money in the denominator, to the price of all others, in harmony with the necessities and wants of mankind, as the relative value of each to the others would be apportioned if exchanges were made through barter. Thus, where wheat and rye could be raised at the same cost, wheat would still fetch the highest price, because most in demand.

The opinion of the founders of the Bank of England was, that its notes would vary like gold, and that the gold would vary like the commodities before mentioned, meaning, I presume, that they would furnish prices as steady as gold itself could make them; varying, that is to say, rising and falling, only as those of the metallic commodity, and not the units of gold, would. It is certain however, that they were mistaken, and yet there must be some truth on which their opinions and theories have been founded, for the circulation of France is comparatively steady; prices there are steady, and she is visited by no commercial crises; she only suffers by their reaction upon her commerce. There must be a fallacy somewhere. Where is it? It lies in supposing gold and silver coin to be ordinary commodities like wheat. But if wheat were adopted as money, they may be supposed to ask, would it not still be a commodity? Doubtless it would, when consumed; but as money it could possess no "intrinsic value" or intrinsic utility, except as a series of unit centals, or unit bushels, to measure *as units* the values of all other things: there can be no valuation in anything but units. While and so long as wheat is not money its value is measured, like other commodities, in units of a kind not furnished by itself: its value is shown by proportional numbers. When, however, it is adopted as money, it is adopted as the material to furnish units of money; a thing that values other things cannot value itself; it can only in turn be valued by them; it is all a question of relation. Therefore, if wheat were adopted as money, its present relative value

to rye and other grain would be measurably lost. Before it was money, wheat and rye were respectively valued in money, according to the demand for and supply of each: this relation is taken away by adopting units of wheat alone as money. But suppose units of rye to be adopted as money, in addition to the units of wheat. Before either of them was adopted, a cental of wheat was worth a cental and a quarter of rye, but now the centals are perhaps mutual equivalents, and one will exchange for the other. But are they not both commodities still? Will they not, therefore, still exchange in the former proportion? Before they were money, wheat was always worth more than rye. Why should it not be so still? Because, both being money, and units of weight or measure being indispensable, in order to use both wheat and rye as money, their respective purchasing powers must be apportioned, and *in point of fact*, regardless of abstract theory, will be apportioned in *some practicable way*; and there is no practicable way but that of barter exchange by weight or measure. The intrinsic qualities of the cental or bushel units no longer determine the relative values: all that is wanted of the material employed for money is to furnish units. But before the adoption of wheat and rye the quantity of wheat produced was largely in excess of that of rye; and yet wheat stood to rye in value as 125 to 100: now, after both are money, the wheat unit stands to rye as 100 to 100. But is there not a fallacy in the latter proposition? Why should they stand in that proportion necessarily? Suppose the production of wheat and rye equal: even then the proposition is not true, for although each furnishes the same number of units, more than half the wheat will be used for bread, and more than half the rye for money. But suppose rye to be in excess of wheat twenty-five per cent.: in that case all the wheat might be used for bread, and all the rye for money: then the value of wheat and rye *actually used as money* will be to each other inversely as the weights of their respective masses. This is "practically" the true proportion, because no other proportion is possible. But it is in the nature of things that this

proportion, being one of mass to mass only, should be changing from time to time, as the relative quantities of wheat and rye used as money are shown to change; and therefore the true course is to approximate the average relative values, and fix the ratio by law, that is to say, by common consent. This law applies as well to silver and gold, copper, and all other metals, and all measurable or ponderable things adopted as material to make units of money. Hence common usage *nationally* can adopt any kind of material; and if the material chosen have no appreciable value, as in case of bank-notes, and bank books where credits are registered, with their various transfers and debits and credits, a form of authentication is adopted with a guaranty of purchasing power, and the only limitation of the issue of units in the absence of "specie payments" is payment back to the issuer as commodities produced are consumed. Payments can only be made through actual exchanges of things produced, and the exchanges can go on only as actual consumption takes place. But with paper currency this is contingent and uncertain. To make sure that it shall take place, the notes and credits are made convertible on demand into gold and silver: but if we suppose, approximately, the annual purchases of gold by the United States, England, and France to be to each other respectively as 1, 2, and 3, it is quite certain that if the United States and England receive any substantial benefit from convertibility it must be by making the paper and credit units in the denominator of price vary precisely, or at least very nearly, in harmony with the gold units. This would require a fixed proportion of reserve to liabilities. Such a rule the United States and England have never followed, because they have never known what it means: writers, bankers, and financiers all consider gold coin a commodity in the ordinary sense, and practically make it such in their reserves. But as price depends upon all the units of money in the denominator of the ratio of price, and not at all upon units out of it, the gold reserves in the United States and England have no direct effect in keeping prices steady, because they do not control

and limit discounts: they only limit the range of prices; the more capital invested in gold, so much the narrower will be the limits of the range. This is all the effect they have, and that entirely an indirect one, upon discounts, except the forcing sales and thus reducing the volume of discounts to some extent by raising the rate of discount, on the part of the Bank of England, when gold is borrowed and exported to buy raw material, merchandise, and securities at cheaper rates than they can be purchased in England.

Some little regulation of discounts is thus obtained; but Mr. Bonamy Price is well entitled to ask: "Of what use is all this gold in reserve? The question is well put if gold coin is an ordinary commodity and also a standard. It is neither. It is an accident that gold is worth from four to five per cent. more than government and bank-notes in the United States. It is the accident of demonetization that makes silver bullion worth less than convertible treasury notes. Given the whole mass of gold in coin by weight while it is the *only* material of money, its purchasing power as a "precious metal," in relation to other commodities, cannot be fixed by legislation. Why? Simply because there is nothing remaining to be fixed.

To assume the power to fix the exchangeable value of the metal is to assume that legislation can to-day effectually declare two and two to be four, and to-morrow five. Given the mass, it follows that units must be made; and they cannot be made without fixing the weight or measure. If the weight of the unit is relatively large or small, its purchasing power is made relatively large or small in exact mathematical proportion. Now suppose gold to be that mass: its purchasing power cannot be fixed by legislation. But suppose silver to be also monetized, without fixing between gold and silver any ratio by law, the government only stamping and milling all coin, declaring the weight by stamping it on each: in the long run the respective values of each reckoned in the other will, with approximate certainty, be as the respective quantities of each; but there will be a constant oscillation or variation above and below the true ratio, as there is

in the proportion of quantities of relative to absolute necessities, and of quantities of money in circulation and prices, between the beginning of one commercial crisis and the coming of another. Therefore, the ratio of relative value between the two metals ought to be fixed by international agreement and law, that is to say, by treaty.

The remonetization of silver would be a grievance in respect to its weight and bulk; but this might be remedied by governments taking the stocks of silver bullion in charge and issuing tokens or certificates, without coining beyond the amount necessary for change. A general remonetization of silver would probably be beneficial in point of equilibrium in the long run, but in the present state of monetary knowledge a partial one might be immediately productive of harm. With a constantly varying gold and silver reserve, averaging in volume as heretofore, according to the caprice of the bankers of England and the United States, so large an increase of metallic units in the shape of silver, constantly varying, as they now do, would only enhance the mischief.

Finally, governments will not be likely to consent to remonetization of silver at present; but in the mean time the disturbance caused by demonetization in Germany and the Latin Union continues, and ought to be retired, as I have already said, very slowly, or by the issue of paper, allowing the future production of silver to take care of itself. Meantime the law of metallic equilibrium is shown to be as follows: Common consent (in other words, legislation) cannot fix the purchasing power of any single metal *exclusively* adopted as money. To affirm that it can, is equivalent to affirming that the whole is greater and also that it is less than the sum of all its parts. But when two or more metals are adopted as the material of money, the relative barter values of each as expressed in the other will be inversely as their respective masses going into coin by weight. The respective masses are subject to variation, and the ratio ought, therefore, to be fixed once for all, with the highest possible approach to accuracy. Such fixation is possible,

because if common consent—that is to say, if legislation—can monetize any one metal, it can monetize two; and if it can monetize two, it can and ought, unquestionably, to declare the ratios. This can only be done by the commercial world.

CHAPTER XXVI.

CONTRACTION AND EXPANSION.

EXPANSION of circulation, or increase in the distribution of money, takes place in every commercial country in proportion to the increase of productive capital, when such expansion is possible, and it always is possible under a circulation of gold or silver, bank-notes, or notes issued by government. Under a system of deposits and loans an economy of money is effected in payments to depositors to the extent of the loans, besides maintaining a volume of production equal to the latter, the actual amount of gold and silver and bank-notes in use being that found in circulation and in deposit and redemption reserves. Under a currency of gold and silver without any banks, the only expansion possible would be through the share in the annual production of the mines belonging to the country having it; and if that were proportioned to the increase of capital there would be no increase of prices.

If the annual production were evenly distributed, and all nations had a metallic or strictly representative circulation, without deposit loans, there could probably have been no expansion or increase of prices through increase of gold supply, as supposed by some, because capital has probably increased as fast as gold and silver. The opinion that it has not, has arisen from not regarding all the facts in the case. If two thirds of the annual product goes to countries having only one third of the commercial world's capital, it is manifest that the annual increase of money in the other countries, having two thirds of the capital and only one third of the bullion, must consist of half paper and half coin; and thus, and thus only, can the annual increase of gold and silver be

in excess. Aside from this increase of paper, to supplement the want of coin, in consequence of the unequal distribution of the annual product of the mines, a tariff on imports or a tax on production will, with a variable reserve, require an issue of bank-notes or increase of deposits, or both, to make up for the increased cost of the goods; while, with a currency like that of France, or with an unvarying reserve, the prices of other things would fall in proportion. This rise of price, however, is not uniform, and has no effect in expanding prices elsewhere in the commercial world; and therefore, under a paper, and still more under a deposit loan system, much of the benefit of "protection," is unfortunately lost.

Finally, by deposit loans an expansion more than equivalent to an equal volume of bank-notes is produced, because, beside being equivalent in effect to the same amount in bank-notes to the holders of deposits, an equal volume of loans is maintained in the markets of production, distribution, labor, and circulating capital, producing increase of prices, which, if it cannot always be met by an equal increase in all money reserves, is met by the use of credit, which thus becomes supplementary to, and not a substitute for cash, as sometimes asserted, because cash is only paid at the expiration of the credit.

Expansion of circulation, or an increased distribution of money, takes place in proportion to the increase, and contraction takes place in proportion to the decrease of production, whether the money be gold and silver, bank-notes, or money in deposit and bank-notes. In the ratio of price the number of units and not their material is essential.

If loans are made out of bank reserve to the amount of five millions, to pay for labor and materials in the construction of a railroad, which proves a profitable investment, a part of the money expended in this manner will be required to exchange the new circulating capital, and also to transact the new business demanded of it. If totally unprofitable, the money will be redundant, and must be retired by redemption of the bank-notes, or the payment of the

bank loans through which the currency to pay for the labor was distributed. If the projectors have the money, they must pay up and thereby reduce the volume of circulating money to its former amount: if they are solvent and do so, they thereby enable the banks from whence they loaned to meet their liabilities in the way of deposits, or by way of new issues. If they are not solvent, these liabilities of the banks will be reduced by redemption of notes to some extent, but chiefly through payment of loans. In this manner, by the aid of their own capital, bankruptcy may be averted by the banks. This forced contraction of loans is a contraction of the currency, because it is money that the borrowers owe the banks, and it is money that the banks owe to each other, and to their depositors: if it were credit and not money that is wanted at such times to make payments, the process of new to balance old credit need only be repeated; but money is required, and the quantity of money is limited. The forced contraction of loans and inability to obtain more, upon some sudden failure, culminates in panic and crisis, and ends, perhaps, in closing the doors of some or all the banks; but whether or not this is the case, the result is contraction preparatory to another expansion. If gold and silver are in use without bank-notes, but with banks, the process is the same, except as to redemption of bank-notes.

HOW EXPANSION AND CONTRACTION OCCUR UNDER A CURRENCY OF SILVER AND GOLD, AND HOW UNDER THAT OF BANK-NOTES.

If gold and silver coin, without banks, be the currency, the expansion occurs by means of money taken out of capitalists' reserves, and the annual and continuing gains in bullion; but this is merely an abstract statement, as gold and silver, without banks, are not the only currency in the world, and if they were, their increase could not be in excess of capital. If investments are productive, the money is needed for the same purposes as bank-notes and money in deposit, where these are in use. If the investment is productive, the extra money will continue in active use: if unproductive,

the money will be gradually retired, or find its way abroad, and thus contract in proportion to the contraction in production. If bank-notes, without banks of discount and deposit, but convertible, are in use, the bank-notes, as soon as they are paid out for labor and materials, if the investment is productive, will continue thenceforth, through issues and redemptions, up to a certain volume, in active use: if unproductive, they will depreciate if kept, and are therefore returned for gold, which will ultimately find its way abroad, as in the former case. There can be no crisis, because there are no bank loans. Where, in the absence of banks of deposit and loans, there are note-issuing banks, authorized, as all men were at common law, to discount notes and bills for customers, by an issue of notes, to be redeemed on demand, there would be loans, although no deposits. In this case the notes could not be retired into deposit, thus holding the deposit bank liable *in the first instance*, instead of the issuer of the notes; and therefore, as soon as the notes were not needed they would begin to depreciate, and would be returned for coin.

Expansion of deposits may occur by large issues of bank-notes issued for the first time instead of being paid out of reserve, and which, after they are no longer needed, are deposited, instead of being sent home for redemption. They are thus redeemed through deposits by diminishing the ratio of reserve, and are, at a subsequent stage, redeemed out of reserve. This occurred on a grand scale in 1857, and was supposed to be one of the immediate causes of the bank panic of that year, so far as the banks of New York city were concerned. Deposits had checked the depreciation of notes, and prevented their being sent home for redemption. The totals of deposits, increasing annually more and more up to 1857, demonstrate this proposition in the clearest manner. The line of equality was crossed in 1854. In 1855 deposits were four millions ahead; and if discounts had then stopped until and as the reserve had increased, and if the reserve had never been allowed to fall below the figures of that month, these bank-notes could not have found a retiring place in

deposits, and therefore would have been sent home for redemption, as soon as they were redundant, for the purpose of replenishing reserves, and their further issue would have been stopped. The notes, instead of being retired by redemptions in coin, as bank-notes were in Adam Smith's time in Scotland, were converted by deposit into another form of bank debt still more efficient than themselves in expanding production.

HOW EXPANSION AND CONTRACTION TAKE PLACE WITH
BANKS OF DEPOSIT AND DISCOUNT, AND AN INCON-
VERTIBLE CURRENCY.

Under an inconvertible currency issued by government or banks, where the limit of the issue is reached, there can be no contraction of the currency; but, nevertheless, contraction takes place by a contraction in the other element of the ratio,—in capital,—for, as already stated, there is a proportion established between all capital and all money, of whatever kind it be, after the money is once distributed. If the quantity of money is fixed, and the quantity of capital progressively increases, the prices of the latter, in its various forms of real estate, whether appearing directly or in the representative character of debentures, mortgages, and stocks, as well as the prices of commodities, must contract as soon as the limit of expansion is reached; and when borrowers have laid out the money loaned unproductively, they are unable to pay, and contraction by way of payment of other loans takes place, as it always takes place with convertible notes where bank loans have been made in the usual excess and upon a national scale. There is a striking difference, however, in the result, where inconvertible notes like legal tenders are in use. The quantity continues the same, and the only important contraction is in loans. After a crisis there is unquestionably a relative contraction between money in deposit and money out of deposit. Money in deposit increases, and money out of deposit decreases. In 1858 there was a great contraction by the retirement of bank-notes.

Before the crisis of 1873 there was a relative contraction, as already stated, because the limit of notes and of bank expansion had been reached. During the crisis a demand for currency, in consequence of panic, on the part of depositors, including country and interior banks, arose, and thus an increase of money out of deposit. This increase has since returned to deposit, carrying with it an additional amount equal to its own volume from the same source, the latter representing shrinkage or contraction in the "volume" of business. It has gone into deposit reserve precisely as it would go into private reserves if there were no banks. The total volume of deposits and money out of deposit remains about the same, except through contraction in loans, whereas in 1858, while there was a very large contraction in loans, there was a corresponding contraction in all money reserves, whether in deposit or out, by the retiring of bank-notes.

The elements of another crisis, therefore, so far as loans are concerned, are ready now as soon as the ability arises to use them. There is no natural contraction possible in legal tender notes, and therefore none in the bank-notes redeemable in them.

THE LAW OF EXPANSION AND CONTRACTION.

The law of expansion and contraction may be stated as follows: If the currency of the commercial world consisted entirely of gold and silver, or a strictly representative paper currency representing precisely the same amount of gold and silver in deposit, without deposit loans, there could not be such a thing as expansion or contraction to any noticeable extent. The loss of capital, and therefore of production, in one country, causing an export of gold to remain permanently abroad, would produce so far a general expansion of prices throughout the commercial world; but this would be effected so gradually as to be of little practical importance. If the currency consisted of gold and silver with bank-notes, but without deposit loans, then the result would be the same.

Some of the bullionists, who advocate an exclusively metallic currency, have confined the effect of the notes to the

countries using them, and have followed it no farther. But herein they have erred, and therefore their investigations have so far been ineffectual, through not exploring and covering the whole ground.

A few observations will make this plain. If the currency of the commercial world consisted entirely of gold and silver, without deposit loans, general prices would ultimately be reduced by more than half. If the United States, on a return to specie payments, has three hundred millions of dollars in coin, the total of coin in France, England, and the United States will be about twenty-one hundred millions, and the total paper seven hundred and fifty millions. If, under a circulation composed entirely of gold and silver in these three countries, and without any banks, the average price of a bushel of wheat, which we will call one dollar, would be reduced to fifty cents, the paper circulation added would carry the price up a little more than thirty-three and one third per cent., or say to sixty-five cents a bushel. The rise of general prices, then, throughout Europe and in the United States, has occurred, partly, from the adoption of a paper currency. Prices in France, although lower than in England and the United States, nevertheless must have risen from the same general causes which have produced the rise elsewhere. Gold and silver alone, then, do not make any lower prices than paper, after paper is once issued and duly distributed; but if all other countries had a monetary system like France prices would be greatly reduced. Hence the issue of paper in the United States and England has affected prices in France also. The proper field for the examination of money, then, is the whole commercial world, and not one country merely.

In the next place, there is an additional expansion created by deposit loans, which is essentially different from an increase, permanent or temporary, of the total number of units of money: it is an increase, not of the units, but of their circulation. An expansion by bank loans is properly a redundancy, differing from other kinds of redundancy in the fact that it is perpetually recurring, while they are occa-

sional and temporary. Redundancy is a disturbance of the natural order of the distribution of money, whereby too much of it is taken from one place to distribute in another, as happened frequently at Rome both before and during the Roman Empire, and as happened of late in Germany. The redundancy arising from bank loans is in a constant state of action and reaction, above and below an average, producing higher prices than could possibly exist with a currency outside, in the absence of banks, and amounting to the total of "circulation" and deposits. Redundancy arising from bank loans is a constant and undue accumulation of the power to employ money in the markets, for the most part, of manufacturing, and not agricultural production, — although there may be some exceptions, as to the latter, — of distribution, and of circulating capital, in the shape of stocks, bonds, government and municipal debt, etc. It is redundancy, because it is in its effect on production and prices equivalent to an artificial accumulation of money in a particular market, and would not be found there if there had not been, though an excess of loans, an excess of the power to circulate money in aid of production beyond what would have been possible if the money had been kept by the owners in their own private reserves, instead of being consolidated in banking reserve. This redundancy begins by loaning money out of the reserve, and is maintained by its redeposit, the latter giving a power to use money to an equal amount out of the common reserve: the power increases for a time as production gains upon consumption. If the circulation is exclusively metallic, with banks, then labor is paid with coin out of reserve; and the expansion produced by coin is of the same kind as that produced by bank-notes, as demonstrated in a variety of forms in other chapters. This expansion, both in England and in the United States, has for a long time taken place periodically by the use of credit, in bank, not, as erroneously claimed by Mill and Price, by way of substitute for money, but as a power to put money in circulation.

To return again to the currencies of France, England, and

the United States, it is unnecessary, for the purposes of this inquiry, to include in the investigation the rest of the commercial world: it would be difficult to verify the data; and the result, if we confine ourselves to these, will be sufficiently comprehensive for our purpose. If a currency of gold and silver, alone, or with strictly representative notes, were resorted to, the total would be reduced from the present twenty-one hundred millions (allowing three hundred millions for the United States after a return to specie payments) of gold and silver, seven hundred and fifty millions of paper, and twenty-three hundred millions of deposits, — in all five thousand one hundred and fifty million dollars, — to twenty-one hundred millions; and, as before stated, prices would be ultimately reduced more than fifty per cent. The preceding figures are merely assumed to give some idea of the enormous contraction which would result. We have already seen that the total of paper — seven hundred and fifty millions — would only raise prices thirty per cent., or from fifty to sixty-five cents. Where, then, shall we find the money required, to bring them up to the actual figures of one dollar? We find it in deposits, and there only. Deposits, in the three countries, amounting to about twenty-three hundred millions, will give us nearly the remaining thirty-five cents, and bring prices up to one hundred cents. Here, again, we have another proof, amounting to absolute demonstration, that commercial deposits are equivalent to their own volume in bank-notes: they are a part of the system of increasing the volume of general prices by increasing the volume of money circulating through the reserve. It is difficult to assign any exact limit to the possible increase of bank-notes in the absence of deposit loans throughout the commercial world, perhaps impossible: the general law is that already stated. The practical limit is, when the banker redeems faster than he issues; that is an exhortation to stop which he generally heeds if solvent. This latter limit, which is sure, or rather would be sure to be reached, in case of an overissue of notes in any given country, were there no deposit loans, constitutes the all important distinction between

bank-notes considered by themselves and deposits. But if bank-notes may be issued throughout the commercial world, and the total currency in it indefinitely increased, so long as the notes continue convertible, why should the notes in any case be returned faster than the banker issues? The reason is, because the first overissue, for a time, creates a local expansion or redundancy, before prices throughout the commercial world can be adjusted by means of a general distribution through its money-reserves, and because so long as the country where the overissue takes place maintains the convertibility of the notes, this insures a demand for gold and silver to such an extent that a large export of metal is impossible, because the very system of convertibility, of itself, reduces the total to the average amount found there. Expansion would be even more likely to come from France than from England and the United States, in the way of bank-notes, were it not for deposit loans. An expansion of that kind in France could take place without producing any immediate disturbance; it would have the show of prosperity in the way of advancing prices, by an increase of bank-notes, and this would cause an export of gold to and expansion in England and the United States, and thus throughout the commercial world. With her immense stock of specie, large amounts could be exported, and the convertibility of the new as well as the old issues maintained. Not so, however, with England and the United States. A large overissue of notes, and hence export of gold, would endanger the convertibility of the note, for which the whole stock of specie in these two countries is virtually pledged. These are the true reasons why an overissue in England and the United States would produce a depreciation and return of the notes for coin before the depreciation had proceeded far; and this, in the absence of deposit loans, would be a *practical* safeguard, although abstractly the only limit of issue is that already stated. Deposit loans counteract this law, for deposits have been demonstrated to be equivalent to cash, and the reserve, the consolidated fund out of which they are paid, and loans maintained at average volume.

Can deposits without loans in any manner, whatever, interfere with the convertibility of the note? None whatever.

Do deposit loans interfere, and if they do, how ?

If deposit loans could be and were all paid up in England and the United States within one year, the result would be that there would be cash on hand to pay depositors, dollar for dollar, instead of a reserve. This payment could not be made in coin, but in bank-notes only ; for which purpose a large additional issue, equal to the whole volume of commercial bank loans, would be required. In like manner, the payment of one half or one fourth of deposit loans would require the same process in less degree. An expansion of bank loans is an expansion equivalent to the issue of an amount in bank-notes equal to the expansion of loans, because every loan diminishes the reserve and brings it by that amount nearer zero, while the amount due depositors, and therefore the volume of deposits, is not only undiminished but may be increased by the new loan : if the latter, the reserve is diminished relatively by an increase of deposits without an increase of reserve : if notes or gold are paid out, the reserve is diminished absolutely. As before demonstrated in a preceding chapter, it is immaterial as to the resulting expansion whether the bank gives credit or pays out notes. Hence it follows that as an expansion through deposits arises from loans, and as contraction comes only by payment of loans, there can be no contraction, except by the act of the borrowers. Some of these are insolvent and unable to pay, and as there can be no contraction except through solvent borrowers, it ought to take place immediately through these, and yet it does not. But if there is an overissue of bank-notes they will be returned for redemption in the absence of deposit loan banks, without any regard to the person who first borrowed of the note-issuer. His solvency or insolvency has nothing to do with the fact of overissue, or the remedy by retiring the expansion. But why should expansion proceed to such an enormous volume as it always has done before a great banking and commercial crisis in the United States ? Chiefly because the excess in the circulation of bank-notes is returned into deposits, for the most part, instead of being redeemed ; and deposits always continue at par until banks

suspend. The cause, then, which produces expansion is excess of loans of all kinds, while the cause of excessive expansion above that of a metallic currency lies in bank-notes unredeemed in deposit. The cause which prevents contraction, is the inability of borrowers to pay. But why does not contraction come through depositors demanding payment of their deposits, as note-holders, in the absence of deposit loans, would of their notes, long before such a stage of expansion has been reached, as always precedes every great crisis? Because the expansion is masked to depositors, or, in other words, deposits never depreciate below bank-notes or gold so long as there is faith in the ability of the banker to pay; and it is a matter of fact that this always continues until a crisis is threatened. The reason why the expansion is masked is this: relative contraction in the field of final distribution (to consumers) has already taken place long before the crisis; that is to say, in circulation. This began to take place in 1855, two years before the crisis of 1857, when deposits increased largely in excess of circulation, and continued to increase up to the crisis because production was in advance of consumption; the increase arising largely from a deposit of bank-notes, which, in the absence of deposit loans, could create no expansion, because instead of a deposit there would be metallic redemption of the notes. They were virtually redeemed by the bankers who received them through deposit, and in this manner became liable to pay, as well as the issuers: instead of returning them for redemption, they used them to make new loans. But a relative contraction in the small reserves of those to whom the notes were paid for labor could not continue without ultimately producing a contraction of the larger ones in the consolidated reserve of deposits, and thereby an equalization; and this could only come by forcing payments from solvent bank borrowers. This contraction is the real banking or money side of the crisis, and the spasm of panic comes by sudden bankruptcies, which are the occasion and not the active cause.

A crisis on a comparatively minor scale may come and go without a panic. The real crisis is a reaction from ex-

cessive loans, gradually expanding until their practical limit is reached, and contraction sets in. A considerable relative contraction in circulation has long before taken place, and it would have taken place in deposits to an equal extent *had it been possible*. Many a banker can bear witness that, long before the "panic," he had endeavored to contract his line, because he had seen the importance of it; and many a banker can say that he would have been glad to increase his reserve largely by payments, at considerable expense to himself, had it been possible. But why does not this feeling extend to depositors? Because, as before stated, contraction has already taken place in circulation through exhaustion of means and diminution of the power to borrow, and the money is not wanted then, unless and until a panic arises. When that is at hand, those who are indebted for overstock want to renew their loans, or borrow at one bank in order to pay at another, and thus enable them to maintain their credit and hold the overstock for a possible market. Production of some commodities is ahead of consumption. The latter is at nearly normal figures, and has been so for a considerable time. This is proved by the contraction which has already taken place in circulation because it has begun to take place in production. It might be more correct to say that circulation never has expanded to a full proportion with deposits. The same law which sends home redundant bank-notes for redemption has sent them instead into deposits as the most convenient method of effecting it. The resulting difference between the volumes of circulating bank-notes and deposits represents the difference between actual consumption and temporarily redundant production. Contraction in the former (bank-notes) takes place in the absence of deposit loans by sending them, the moment they are not wanted, back for redemption. Under deposit loans they are, on the contrary, retired by the holders into deposits, and ought to remain there out of circulation awaiting redemption. But instead of being considered as a debt already incurred by production, remaining unpaid for want of a consumer's market, the debt is largely increased by new loans, which have no

other foundation than that of an already insolvent debtor. Contraction in loans cannot take place to the extent demanded, because the solvent borrowers have too large "lines of accommodation" in bank, which means more goods than they can sell, and other borrowers are absolutely bankrupt through unproductive investments of their money, and cannot pay at all. Moreover, too much pressure would bankrupt some of the solvent ones. In the examination of this subject, intricate and complex as it undoubtedly is, the danger lies in forming opinions and adopting conclusions of a one-sided character, by looking at only one, instead of all the active causes in operation. If expansion of "circulation" — or, in other words, money — occurs according to the exact import of the word while bank-notes are convertible, and in the absence of deposit loans, there is an even distribution of the increase to every money reserve in the commercial world in due proportion; and, as before stated, it is impossible to assign the limit to which bank-note circulation might be carried if the increase were to take place in equal proportion throughout the commercial world. So long as the notes continued convertible, expansion might go on slowly and regularly until volume and prices were more than doubled. The expansion which took place from time to time, as the United States issued more inconvertible legal tenders, and afterwards as the banks issued more inconvertible notes, furnishes an illustration. The impossibility, however, of carrying on a regular and duly proportioned expansion with such notes throughout the commercial world is manifest, and the true and exact science of the whole matter lies precisely here: general expansion comes in proportion as metal goes abroad or into hoards. This is the reason why an unusual issue of convertible bank-notes, without deposit loans, will be returned *soon after their being paid out*. They are not wanted for general circulation, to go into every money reserve in equal proportion, and therefore they are, in point of absolute truth, redundant from the moment of their issue. They are paid out for labor, to increase production, and enable manufacturers and merchants to keep larger lines than consumption

demands, and to enable adventurers to pay for labor that, for the present at least, is wholly unproductive, and therefore they are retired by redemption.

Here we see in broad lines the distinction between local redundancy and general expansion. As it is impossible for the notes to go into general circulation, it is certain that they must be redeemed by the issuer in the absence of deposit and discount banks; but with such banks a deposit with the nearest banker is a matter of course. Coin is not wanted so much as exchange on commercial points; but where there are only banks of issue, the bills drawn upon commercial centres must be paid in metal actually delivered to pay the debts incurred in supplying the wants of the laborers who make use of the excess of notes, as well as the wants arising from the labor and production of the country in general; but with banks of deposit and discount the redemption is by checks or drafts upon bank reserve in which there is no certain amount of metal. It would be a great mistake, however, to infer hastily that, because there is no general expansion, but only a local redundancy which is constantly thrown back to a large extent upon deposits, instead of being retired by a redemption of the notes, there is therefore no expansion of prices. Mercantile credit comes in, if at all, not as a substitute, but as supplementary to bank loans arising from the discount of the paper of retail merchants. The increased cost of goods from overproduction is thus paid by consumers, until by the general crash prices are forced down, and the cycle of reaction begins.

The commercial world has no share in and pays no part of the losses directly resulting from this action and reaction, by way of participating in the rise or the fall. The immediate loss is borne by the countries afflicted with the system, and other countries lose only by the fluctuations in trade. Here we see again, from an international point of view, the principle upon which a minimum banking reserve would operate by maintaining all production in harmony. But again, it would be a mistake to suppose that the "multiplication" of bank-notes is the only active cause; it is but

one of them. There is also a further expansion of deposits after the unredeemed bank-notes have through deposits performed their office of paying for still more labor. They are increased to the extent of profits and charges paid by merchants who buy but cannot sell. If there had been no undue accumulation of unredeemed notes, loans of this kind would soon have come to an end, for deposit loans are the usual means of purchasing and holding the goods already produced in excess by loans of bank-notes paid out to laborers.

The rise of price through redundant production is a cause of great loss to the United States and England, and the true remedy is to make general prices, by which the cost of living to the laborers is determined, as steady as possible, by establishing a fair *minimum* reserve, for which there has never been a lack of gold in either country.

THE PROCESS OF GRADUAL EXPANSION THROUGHOUT THE COMMERCIAL WORLD.

It has been shown in the preceding chapters that in the absence of international commerce a currency of gold and silver might, with the exception stated, circulate at par with a currency of paper, although the purchasing power of the money would be diminished in proportion to the amount of the paper. So, in like manner, in the absence of that commerce, a convertible currency might be issued by any commercial country and maintained as long as the note continued convertible. The issue would be checked from time to time, however, because an accumulation of the notes in the market, which would unavoidably take place before they could be distributed throughout the country, would produce a redundancy which would send the notes home for redemption. Still, if the notes were issued very slowly and gradually, an expansion could be produced, the only limit of which would be the line between convertibility and non-convertibility; and up to that line, if the notes were convertible at the proper places (commercial centres), they would be on a par with the gold and silver, and the notes would not depreciate below that par. The fact of non-depreciation in con-

vertible bank-notes relatively to metal, then, is clearly made out, and this is all that Smith, and others following him, have demonstrated.

There is nothing in the nature of gold and silver coin to limit the extent of their depreciation or loss in purchasing power, except their commodity value as an article of commerce for use in arts and manufactures. This creates a demand, but, like all other demands, it has its limit; and that limit is another and rival demand for them, to be manufactured into coin for currency. In the conflict of these demands one will sometimes be in excess of the other, but neither gold nor silver coin can ever be below the unit par, although sometimes above it. That in all cases, however, gold or silver, thus continuing at par, still retains its former purchasing power, was never demonstrated by Smith or by anybody else. It will depreciate as well as paper, but there is a commodity limit, through the metal, to the depreciation of both. Hence, in the absence of all banks, isolated governments might issue inconvertible, forced, or legal tender notes, which would rise and fall in purchasing power, — that is, up to and below the par of gold, — from time to time; and when below the par of gold, the latter would be used more extensively in arts and manufactures. The introduction of international commerce would only furnish an additional market for the metal, and send some of it abroad, but the general principle of expansion would be the same.

Local or national expansion, then, in respect to the volume of money, and so indirectly of prices, may be applied to coin as well as to paper. When bank-notes are convertible on demand into gold, they may be filled up, and signed by the banker, and expended by the borrower for labor upon a railroad, the stock and debentures of which will sell for less than half cost when it is finished, or upon mills and factories, which are left unfilled with machinery and stock because they are not needed. These notes, when paid out to the laborers, and by them for necessities, have performed their office, and ought to be retired, but they quickly find their way to the banks and go into deposits, which are but a con-

solidated reserve. If a deposit of these notes in a bank were impossible, for want of a bank to deposit in, they would go into the owner's private money reserve, either in the shape of notes or gold, into which he would convert them through redemption; and chiefly in the latter shape, for reasons before given. This redemption would stop further issues and retire the redundancy as soon as it occurred, and thus reduce all reserves of money, whether large or small, to the old average; or rather, it would prevent them from increasing above average — in other words, in excess of the wants of distribution — for purposes of consumption. But the shortest and easiest method will always be pursued in preference to the most difficult, and so the redundancy, instead of being retired by redemption, is retired out of circulation by deposit. The banker would stop loaning if he were called upon to redeem the deposited notes of other banks in gold purchased at high rates; but the increase of these deposits, which is an increase of the grand total of deposit liabilities, — manifestly, in a scientific point of view, evidence of weakness rather than of strength, and an index to the coming storm, — appears to the banker and to the commercial world the evidence of new resources for further loans, instead of a debt which he has temporarily assumed for the bank which issued the notes. The expansion continues because it is masked in deposits. That the notes deposited are not wanted in "circulation" (that is, for purposes of final distribution through real commercial exchanges) is daily demonstrated by their return, through merchants and other distributors, into deposit. They are really debts which, instead of being paid by the debtors who issued them, are taken in exchange for their own debt by the bankers who receive them as deposits, and are thus made the foundation of further loans to producers, who are induced to increase production when, instead of increasing, it ought to stop then and there, and would do so if the eyes of bankers could be opened by being called upon to redeem their notes out of the commercial world's gold, — each one his own, and his own only. The same thing occurs in effect where the currency

is gold and silver, with deposit banks, but the rise of prices cannot proceed so far: the only difference is in the range, but not in the ratio of variation.

In the latter case the reserve (gold) is reduced absolutely by the loan of gold out of it, to pay for labor, and it is reduced relatively through the increase of deposits, by a return of the same into deposit: the difference between this and the former case is one of form only. Had it not been redeposited it could not have been reloaned, any more than gold received on the redemption of the bank-notes before mentioned in the supposed absence of deposit loans. Circulation could not be stimulated to an increase beyond the wants of consumers in either of these cases; and the law (the existence of which has been demonstrated), that all money is a series of reserves, and all circulation a constant depletion and repletion of them, so as to maintain an average, would in both cases vindicate itself immediately. In the same manner the large reserves composing the consolidated reserve; or series of consolidated reserves, called deposits, — which represent the accumulated excess of production over consumption, — must suffer the necessary depletion in the end: it is only postponed by the deposit. Contraction takes place most where there has been most expansion, or rather where the expansion has been finally located; and it takes place in bank debt resulting from redeposit, by retiring and canceling the surplus notes, when the circulation consists of bank-notes, and by restoring to banking reserve the gold which has been taken from it, when the circulation consists of gold and silver; and in both cases the first step in the process is by the payment of bank loans; if the borrowers who have created the redundancy, by borrowing and expending unproductively, cannot do it, solvent ones must do it for them. This contraction is the banking side of a crisis.

But to what purpose, says the theorist, who believes that deposits are not the equivalent of money, but merely book debts, — although he may admit bank-notes to be money, — is all this discussion about expansion and contraction, which

only involve the question of prices? Much, every way: for if a matter which, through a general redundancy of production, unprofitable investment of labor, and consequent rise of prices, leads to a banking and commercial crisis, bankruptcy of merchants and sometimes of banks, by gain in deposits, and consequent loss of reserve, making one rich and another poor, by variation in the reserve, is not one of the most important subjects in social science, it will be hard to find an important one. Loss of reserve, relative or absolute, is expansion: gain of reserve is contraction: variation of reserve is putting one man's hand into another man's pocket, and resembles an expansion through an irredeemable currency in its effects. The question of high and low prices is of no importance *per se*, but relatively. It is important for every country to have prices as low as they are anywhere in the commercial world, and to hold them steady, if it desires to keep distribution from becoming a game of chance, and to have an even distribution, or as even as possible, of wealth and of money. The essential difference, then, between a metallic currency and a convertible bank-note currency with banks of deposit and discount, and without a regulated reserve, consists only in the range of expansion to which prices are carried by bank loans, and not in the principle which underlies the expansion. If banking reserve were maintained at a fixed ratio to debt, one banker could not redeem another banker's notes for him by taking them into deposit, — thus making the deposit the foundation of another loan, — instead of redeeming the notes in gold. If A., a depositor, brings to B., a banker, ten thousand dollars in bank-notes of another bank, to deposit, when B. has a metallic reserve of one million, which is the legal minimum, and owes five millions, B. cannot receive them without first buying two thousand dollars in gold and putting it in his reserve in order to maintain the ratio. This he will not do, because he will wait until the reserve replenishes itself, as it ought, through the exchanges. A. will therefore be compelled to send the notes, or at least one fifth of them, for redemption to the issuer, before he can deposit them. As a practical result,

the notes will not circulate in excess of that ratio of reserve to bank liability.

The foregoing examination gives a subjective view of deposits and circulation as they appear, without reference to the motive forces which control them in the character of banks and borrowers. The subject cannot be understood without studying those forces as the paramount active cause. This chapter shows only the phenomena as they appear in circulation and deposits. Such an examination is of itself entirely insufficient. It is not surprising that political economy is considered dry and unsatisfactory. It can never be fully developed until the forces which move the social machine are carefully studied, as well as the instruments by which they act.

Finally, ought bank-notes under five dollars to be forbidden after a return to convertibility? The answer must be, that if banking is to be conducted in the future as it has been in the past, without any regulation of the reserve, the exclusion of such notes would necessarily force a considerable amount of coin into circulation. This would contract the total volume of outstanding circulation, and limit the range of variation of prices to a considerable extent, in the same manner as in England. There a limitation still more complete exists by the use of a still larger proportion of coin; but the range only, and not the ratio of variation, would be affected, as elsewhere shown.

CHAPTER XXVII.

THE STIMULUS TO SPECULATIVE PRODUCTION AND SPECULATION, FROM THE INCREASING PERSONAL MANAGEMENT OF CORPORATE AND FIDUCIARY CAPITAL.

A VAST amount of capital has passed into the control of corporations in England and the United States within the time of the present and past generation. Charters in the United States cost little, and organizations which create corporations in the United States, for the most part, take place by filing articles of association. The property, being controlled by directors who are trustees, is thus nominally fiduciary. I say nominally, for such it is for the most part. The real management, not only executive, but deliberative, in the largest number of instances, lies with one or two of the directors. The result is, that the capital, instead of being managed as a trust, is frequently used as if it were the private property of the managers, who thus become speculators. In this way the property loses that cautious oversight which self-interest compels every private person to use in respect to what is his own. The stockholders thus take all the risks of new enterprises, which are undertaken for them without their consent, and lose to a great extent the profits, if exceptionally any accrue. These go largely to the speculator, acting his part like the profane wretch in the old fable, who took the kernels of the nuts for his own use, and devoted the shells to the gods. All this results from carrying what may be called an inevitable tendency to an extreme. I say, inevitable tendency, because the management of railroads and their connections has become an art or science by itself, and the managing directors necessarily lead the minds of their co-directors and stockholders. The mischief lies in permitting

this tendency to run to excess. This tendency, thus carried to extremes, is sustained, and in some instances exaggerated, by the aid of stock speculations; and these latter require the aid of banks. Vast amounts of railroad capital have, by the aid of stock speculations, been carried into a few hands. These unfortunate results unquestionably exerted a powerful influence upon the minds of the "strikers," as well as the destroyers of property in the late industrial disturbances in the United States. Labor had no just cause of complaint against the men whom I have called speculators, some of whom had, without capital, obtained control of railroads, and the remainder of whom had not only obtained control, but also, through speculation, a controlling interest in certain roads. The true ground of complaint was a joint one in behalf of the capital which had originally built and equipped the roads, and the labor which has of late been turned away from the making of pig iron, bars, railroads and rolling stock, against that system of producing on credit, by the aid of loans, and speculating meanwhile upon the product, which had lost the contributing capitalists much of their capital and set the workmen adrift. In other words, the cause was real, but nevertheless intangible: nobody was to be blamed for its existence, and everybody ought to pity everybody who suffered by it, as everybody who saw and heard the performance was called upon to pity *Œdipus* in the tragedy of fate. When wealth is produced in harmony, there is, on the whole, a harmonious distribution of it, but when it is not produced in harmony, that which is produced in excess must necessarily be produced on credit; and production on credit, carried to the point of a crisis, ends in bankruptcy. A large part of the resulting loss becomes the gain of a small number of shrewd and lucky speculators. It has been said that more than four fifths of the merchants fail. If such be the fact, a considerable part of the loss must fall upon the banks, by whose loans the result is brought about. The banks are, for all practical purposes, guarantied partners, with profits fixed and prepaid in the shape of interest. In case of failures, the only fund out of which the guaranty can be made

good is producer's assets. Hence the management of banks necessarily relates to the most important of all the productive agencies; for the principal part of production on credit is effected by their loans. And how are they managed? Do boards of directors determine the amount and character of loans? In the nature of things it is impossible. Boards of directors are called upon, for the most part, to sustain a line of discounts already existing, or to discount at the suggestion of executive officers. The business of the manufacturer and merchant requires dispatch, and equal dispatch is demanded of their partners, the banks. In the nature of things this must, to a considerable extent, have always been so, and of late years it has been still more so. The character and business of banks depend, mostly upon the management of executive officers. Bank loans are the agency by which the road-bed and rolling stock of the Northern Pacific Railroad were built; bank loans are the agency by which the speculations in stock are conducted and labor paid to construct branches for main lines, whether stockholders are consulted or not. Hence the danger which always lies at the door of Bank Loans, even when well managed by efficient boards, who take a personal interest in the discounts. But how much has the danger increased, when, to a considerable extent, the tendency to executive usurpation existing in railroads has been carried into banks? There is but one remedy, and that is, to limit, if possible, discounts in all banks at some definite point fixed by law, beyond which no discounts can be made. To fix that limit is, as already demonstrated, to fix a universal limit, for the whole country, to production; to stop the making of pig iron, bars, road-bed, rolling stock, cloth, etc., at a certain point, declaring that production on credit shall proceed no farther until stock on hand is sold and loans paid; to limit stock speculations at a certain point, and, by regulating all prices, to place such speculations on a true basis.

CHAPTER XXVIII.

THE SPECIE PAR OF GOLD AND SILVER: BALANCE OF TRADE.

GOLD and silver, by weight, measure the exchangeable values of all commodities passing into international commerce, and hence, if they follow any law in their distribution through the commercial world, it must be in proportion to the value of commodities passing into that commerce from each nation, in the absence of bank and government issues. But there is absolute proof to this effect. If a nation, through failure of crops, is compelled to import grain, the gold it sends out is largely returned, and the loss mostly paid out of capital, to be made good at a future time.

There is a forced export, in such a case, of other commodities, or capital in the shape of securities, to make up most of the deficiency; and the loss of gold is in exact proportion to the diminution of exports below average, in consequence of the failure of crops; which inversely proves the proposition.

The value of commercial gold or bullion fluctuates, advances, or recedes, in proportion to the demand for it as a useful commodity in manufactures and arts, the increasing or diminishing ratio of supply from the mines, and the greater or less variation in the ratios of the total annual product of commercial gold, and the total annual increase of international commerce. If there were no such commerce, there would be found, on comparison, a much greater variation between the ratios of the totals of gold and silver and the total amounts of commodities, entering into internal commerce in each country; because, taking the whole commercial world together, these differences correct each other, and one

uniform average is established, which is the limitation directly of all purchasing power in the international markets, and would be in the national markets if there were no banks of deposit and discount, and no inconvertible paper issued by governments or banks. The balance of trade is the difference between the value of the articles exported and the articles imported in favor of any country, and paid in gold and silver. The difference so paid to any country was thought to be highly desirable because the metal was the only real wealth; at least it is so asserted by writers. But this is only false reasoning to maintain what was really a sound proposition. The "balance of trade" was, as it still is, desirable, because it shows economy on the part of the nation having the balance. The balance in the shape of metal is a power to obtain an equivalent in goods, or to cause an equivalent production to take place in future. But there is a limit, and a very short one, too, to such economy, because other nations must soon be unable to exchange unless the economy is abandoned or confined within narrow limits. It is a question of mutual action and reaction, and of mutual condition resulting. The doctrine of the balance of trade within its practical limits, and showing, as it does, economy or good fortune in not meeting with losses through failure of crops, relative overproduction and unproductive consumption, is sound enough. It is only saying, that the economy commended in individuals, showing its effects in a larger relative command or possession of money, is sound in its general as well as its particular results, practically limited as it is by the possibilities of international trade. The supposed mistake of those who argued for the balance of trade was that they carried out to its logical conclusion the theory of mercantile value in money as a commodity, not only in national trade and the accumulations growing out of it, but also in international trade. But if money has value, because it is an end in itself, why should not the end reach into international, and why should it stop with national trade?

Hence, as gold and silver are thus distributed in accordance with a certain law of uniform action, it is impossible to

carry or export either of them and cause it to remain permanently in the place to which it is carried or exported in opposition to the law which governs the distribution, unless it be buried or hoarded, cast into the sea, or manufactured ; and it could thus be disposed of only to a very limited extent, because it could not, in larger amounts, be obtained : the amount so obtained would not be missed from the general mass. If exported and converted into money or merchandise, or sold in any form, it would, for the most part, return. Therefore, as long as gold and silver continue to be the measure of values in the commercial world, neither England nor France will be able to get rid of their portions by sale: their banks may retire gold occasionally, through export, by reason of a movable or fluctuating reserve, as explained elsewhere, but it will soon return. Hence it would be impossible for the Bank of England, or the Bank of France, to dispose by sale of a large portion of bullion, permanently, unless they can vary their reserves at pleasure. It could only be sold or lent to subserve a temporary object, because the export of gold would be followed by an import. This assertion is further verified in the chapter on Banks. A permanent disturbance of the distribution of gold and silver, with a fixed ratio of reserve, is as impossible, therefore, as to prevent the restoration of equilibrium between positive and negative electricity. An artificial and temporary disturbance can occur, when the reserve is not thus fixed. This is the first par of purchasing power.

The second par of purchasing power of gold and silver is the convertible one,— the notes, which represent what may be called a loan of gold from the commercial world, being redeemed upon demand at a commercial centre. Gold is in demand here, first and chiefly, for the purpose of redeeming the notes, and the gold in the country outside of the redemption reserves in banks, and not in circulation, as well as these reserves themselves, may be regarded as a part of the redemption fund, because if the notes cease to be convertible, the gold will, to a greater or less extent, leave the country, or retire out of circulation. Under this par,

gold and notes are on a par with each other, but both, nevertheless, may be below the value of gold as the money of international commerce — in other words, commercial gold — from two causes: first, deposit loans, which, increasing the amount of loans, in the markets of merchandise and labor, that could exist, either under a gold and silver or a paper currency, without banks of discount, artificially raise general prices to the extent of the increased volume of business, and the additional interest and risks of all kinds thereby arising, thus producing a perpetual expansion and contraction of prices; and this expansion is masked, until borrowers, or banks, or both, become bankrupt or disabled. It is generally believed and insisted, by that class of writers on money who are called bullionists, that this expansion, which they not only admit, but have pointed out, arises from bank-notes, and not deposit loans. But I have demonstrated in other chapters that they are mistaken, because before deposit loans began the total of loans in the markets was only equal to banking capital; they were more than doubled by the establishment of deposits and deposit loans, and they could be reduced to their original dimensions by the retirement of deposit loans; and moreover, they have never shown the falsity of Adam Smith's testimony relative to convertible notes, nor can they. Hence this artificial rise of prices, which can no more be denied as a fact than Adam Smith's testimony, can arise only from the cause I have given; that cause explains all the phenomena, and no other will. The second cause, which raises general prices, and therefore increases the expansion of the circulation of bank-notes, and consequently depreciation of their purchasing power, and thus of the gold into which they are convertible, as compared with general prices throughout the commercial world, is a tariff on imported or tax on domestic goods. This is properly only an aggravation of the first cause. If the currency of a country were exclusively gold and silver, without deposit loans, the distribution of the money being perfect, because natural, and it being impossible to attract gold and silver, which are *limited in quantity*, from other countries when general prices are at

an average, to the country having the tariff or tax, in order, by raising its general prices, to equalize the loss arising from the tariff or tax, equalization, and thus compensation, can only be brought about by a general fall of prices equal to the effect which ought to result from forcing out of private reserves into the treasury, and keeping there, the average amount of gold and silver which remains there in consequence of the tariff or tax, and is in excess of what would be found there if there were no such tariff or tax. If any article is protected or intended to be protected, therefore, the full benefit of protection will be at once realized under such a currency, because there can be no expansion of circulation to counteract it. The contrary of all this occurs when there is either a metallic or paper circulation with banks of deposit and loan. Equalization and compensation for taxes laid on commodities will occur, *wherever it is possible*, by a corresponding rise of prices in other things, and that is possible when either a paper or metallic circulation, or a convertible paper circulation with banks of deposit and discount, is found, simply because the circulation of money is not limited by the natural law of distribution of commodities, but by their production. A much larger portion of the tax is thrown back upon the protected producer by other consuming producers, through a corresponding rise in their produce to offset the rise in his, than could occur under a currency of gold and silver, or convertible notes without deposit and discount banking, or with such banking under a regulated reserve. The expansion of bank-notes to meet this demand for the equalization of prices, under deposit and discount banking, produces, upon the principles already demonstrated, an equal expansion of all money reserves, by the expansion of circulation of all money outside of banks and the equal expansion of deposits. The cost of producing the protected article, at the same time, rises in proportion to the overstock, and the protection of the producer is lost. The third kind of par arises when the redemption of bank-notes is suspended, but they nevertheless continue at par, as explained in the chapter on Bank-notes. The notes are, in this case, distributed with

the gold, and therefore evenly, unless there are deposit banks and loans; but with or without the latter, the notes, and therefore the gold, may be very much depreciated in purchasing power below that of the same notes if they were convertible. Gold and silver coin and bullion being the money of international commerce, and being both equally bullion, and bartered as commodities according to the rates of exchange between the two metals for the purpose of paying those balances which ordinary merchandise is insufficient to pay, the latter being first valued in the money of the country producing them, and then in the money of the country to which they are sent, with a currency of silver and gold throughout the world, whether equally distributed by general monetization, or unequally, by monetization of one of the metals in one or more countries, and the other metal in other countries, the purchasing power of both metals would be brought to a fair average, after allowing for distances, costs of carriage, etc. The average would be maintained with duly convertible notes of banks of issue without the functions of deposit and discount, like those of the Scotch banks in Adam Smith's time, or with an issue of government paper to an extent sufficiently short in total amount of what could be the total circulation if metallic; for instance, an issue of two hundred millions of treasury notes by the United States, upon the return of convertibility. The average par which would thus exist throughout the commercial world with such a currency, — all other issues by banks or governments being excluded, — would be steadily maintained, the conditions supposed remaining. The only movement of gold or silver, then, would be in the tracks of commerce. But with an artificially increased circulation, either of gold and silver or convertible bank-notes, the metal could be, as it has been, carried from one country to another, by loans out of banking reserves, without reference to commerce. It can be taken from one country to another in this way (to remain but a short time of course), but the fact that it can be so carried results from the fact that the metallic banking reserve whence it is taken is no regulator at all of

the circulation of money, but is itself regulated by bank loans; by the production rather than the commerce of commodities.

The metallic par of value in exchange is so far controlled by the credit par instead of itself controlling the latter.

The term Par can therefore be affirmed of gold and silver in the same sense in which it may be of bank-notes, and in no other. Premium on either gold or silver, as compared with bank-notes, is accidental.



CHAPTER XXIX.

STANDARD, DOUBLE STANDARD, AND METALLIC SUPPLY.

STANDARD, as applied to silver or gold, is born of Commodity. If money is a series of units, localized in metal, or bank or government notes, "circulated" by placing it in the denominator of a ratio, the numerator of which is the number of units of goods sold, the quotient being Purchasing Power, or one or more of a like series of units of metal or notes, placed in the numerator of a ratio, the units of goods being placed in the denominator, the quotient being Price, Money's Worth, or Conventional Value in Actual Exchange, then certainly there is no such thing as Standard in relation to money, except the Standard Unit. Conventional value, as applied to money, is of two kinds: first, the general convention, evidenced by *general use*. If one metal, like gold, be in use throughout the commercial world, the units of valuation, purchase, and payment must be to each other, in point of general conventional value or purchasing power, as their respective weights: and if silver be also in use, then the ratio of general conventional value between the units of each metal becomes that of mass to mass, in coin; secondly, conventional value in actual exchange for commodities, which is the carrying into effect of the first convention. Hence there is practically room for great variation, whatever the units of valuation may consist of, whether it be metal or paper.¹ A

¹ As every purchase, whether at wholesale or retail, is made by means of a ratio or division of units of commodities by units of money, — the quotient being multiplied, divided, or neither multiplied nor divided, according to the circumstances of each case, to ascertain price, the standard result or average price must be ascertained by adding and averaging the results of all the purchases of the same kind which are taking place. This will give the standard result of numerous standard variations, which is absurd. There is no standard

thing which is constantly varying can never be a Standard in a true sense. That money of all kinds must necessarily vary, according to the number of its units placed in the numerator, to furnish Price, or in the denominator, to furnish Conventional Value in Exchange, is *mathematically* certain; and that it is constantly so varying is certain in *point of fact*.

Hence gold coin is neither Commodity nor Standard, because it is utterly absurd to call a unit in the numerator or

then in this sense. But a standard metallic commodity is equally impossible, because for the last fifteen years the premium on gold has been no standard test of the exchangeable value of paper money. This demonstrates that gold does not, as a standard commodity, measure the exchangeable value of any paper money. Varying itself in this manner, there can be no analogy between it and the "standard yard-stick," as is sometimes affirmed by writers on money. The only sense in which it can be a standard, then, is the absolute necessity of dividing it into pieces of a given weight, in order that it may perform its functions as a series of units, limited by the quantity of metal in each to exchange all commodities, labor and capital. The only standard possible or conceivable, when money is subjected to rigorous analysis, is the standard, because absolute necessity, of making such division before money can be used, not as an ordinary commodity to exchange for some other commodity by way of barter, but as a series of units of a commodity, for the units of all commodities. *To all commodities and all capital whatever*, it can bear no relation but that of units, nor can these bear any uniform relation but that of units in the abstract to money. The relations of use between different commodities, which are duly estimated on the spot when they are brought together for barter, give way when a unit of metal is given for a unit or for units of commodities, to a mere abstract relation of number as to the money, because, though the metal in the coin has such relations of use, or more properly would have such relations, if exchanged for another commodity, it has no conceivable relation, even as bullion *to all other commodities*, but that of number; and it cannot be numbered unless divided. There is only one other sense in which standard can be affirmed of money. In London gold is the standard point from whence to measure the rise and fall in silver, and in China silver is the standard point whence to measure the rise and fall in gold. In that sense gold is the standard in England, and silver the standard in China. There is in reality no money standard in any conceivable sense but that of units obtained by a division of some commodity or commodities into units of equal weight or measure, and multiples and fractions of these. No wonder that Mr. Bonamy Price is unable to see what necessity there is for keeping in the reserve of the Bank of England more gold than enough merely to supply the calls of those who want to carry it away from the bank, when it is looked upon merely as a commodity in the ordinary sense of the word. As an ordinary commodity it has no conceivable relation to what are called the credit transactions of the bank. Its only conceivable function in that character is to supply actual calls to carry away: enough for that purpose is enough to keep, upon the commodity theory.

denominator of a ratio, a standard. Equally impossible, in a practical point of view, is fixation of the proportion between the units of the numerator and denominator: they are constantly varying. Steadiness, in this proportion, however, is the objective point towards which all true currency reforms aim; that is to say, steadiness in the number of units of money, so long as the units of goods sold continue the same. Standard, then, for all practical purposes, as applied to one or the other metal and distinguished from weight, means the closest possible approximation to steadiness in the number of units of money, employed to buy a definite number of units of goods, while the supply of the latter continues the same.

Now the closest approximation to such a standard lies in variations which, while unavoidable, take place and are therefore rectified, and the average brought up, within the shortest periods. This is precisely the kind of standard result brought about by the use of metallic money, — gold, silver, or both of them. That it has been, that it can be, and in some countries is now brought about by the use of metallic money, while in other countries, which have what may be called a metallic circulation, it is not, and, under their monetary systems, never can be brought about, I can plainly demonstrate upon the foregoing general facts, applied to the minor facts in the respective cases; but upon the *theory* that gold coin as such is a commodity and a standard, and that Credit pays debts by set-off, I cannot. The demonstrations under this head belong to, and are given in other chapters, and are only referred to here, because of their connection with the subject of standard. In respect to single and double standard, there being no such thing as a single, there certainly can be no double standard. But would not an annual supply of each metal be more likely to maintain the variations in the ratio of price, within shorter averages, and therefore nearer to the objective point, Steadiness, than an annual supply of one metal? Undoubtedly; and hence it would come nearer to furnishing a standard, in the only sense in which standard is possible, than the product of a single metal

could.¹ There is, however, an approximation to the truth, implied in the use of all such words. While units of gold coin, when performing their function of money, cannot in true science be regarded as a commodity, because they are only units limited and legalized; while Credit can no more be said to pay debts than Confidence or Hope; or gold and silver be a standard than a unit in a ratio can be such, the *material* of gold coin is a commodity, units of bank debt, founded on *credit and confidence*, and limited by liability and convertibility in the shape of bank-notes, have circulated and do circulate; and the nearest possible approach to standard steadiness is furnished by metal, if circulated in a certain way, or if used as a reserve, in a certain way. The principle involved in circulating money in that certain way, is this: the only thing which gives value to money is the thing it buys: it buys both commodities, services, and capital: were there no loans of money, the money, in every man's hands, if he were not a thief, would furnish conclusive evidence that he, or others paid by him, had produced value, to the extent of the value of that money reckoned and delivered in goods, in exchange for the money. Under these conditions, prices must be steady; but when, in the progress of civilization, loans take place, even with metallic money, and in the absence of banks, more or less unsteadiness in prices must follow, because the money in the lender's hands is the proceeds of goods sold for consumption, and if not loaned,

¹ This is a matter for consideration in a congress of commercial nations. So long as the East maintains the silver standard, gold will answer all the purposes of the Western nations. The changes in the barter rates of the two metals, growing out of the late demonetizations of silver in the West, are no indications of change in the standard purchasing power or exchangeable value of gold for all other commodities in Europe and the United States, or of silver for all other commodities in the East. The resulting reduced production of silver and greater production of gold; greater consumption of silver and less of gold in the arts and manufactures, and the comparatively slow movements of the two metals in consequence of the impossibility of making sudden changes in monetary systems, will maintain the equilibrium in prices, sufficiently for all practical purposes. There is no danger of cheap silver money or dear gold money. The great objection to silver is its weight and bulk. If generally remonetized, governments ought to store and keep it safely for holders, when requested.

can only be used by the owner to make purchases for consumption, unless he produces himself; and in that case he can, by using the money, only produce to an extent equal to the consumption, which his possession of the money demonstrates to have already taken place. But his production, should he produce himself, is thus precisely equal to that of the borrower: in either case, whether a borrower takes the money and produces, or whether the owner of the money himself produces, the production is in advance of the producer's own wants; and he must, from time to time, sell for cash, and reproduce. If there are no banks, and the money in use be metallic, the lender's money will so soon be exhausted that the advance of production ahead of consumption, through overstock, will be but slight, and prices will therefore rise but slightly, before sales restore the equilibrium.

Where there is a rising scale of prices there must necessarily succeed a falling one; but under these conditions the periods are so short, that the variation is but a short departure from steadiness: it approaches steadiness as an inscribed polygon of many sides, during its inscription, approaches the circle and at short intervals touches it. But why is metallic money, in the absence of banks, the steadiest, in respect to prices, of all other money?

Were production entirely harmonious, as it certainly would be in either of three supposable cases, any kind of money honestly issued would give steady prices, because *it would be impossible to put money in circulation any faster than it would be retired from circulation*. But production is not harmonious. There is no overstock of the necessities of life, and there never can be, while of other things there may be. But because the necessities of life cannot be overproduced, there never can be, in the first place, at any time, a *general* overstock; and in the second place, there cannot be, on the average, any partial overstock, because rectification must follow by the partial overstock running down to an understock. The machinery of social exchanges must move in harmony, upon the average, because, after the producer of

the absolute necessities of life has sold all he has to sell, should the producer of other necessities be overstocked, the latter must stop producing for the other to catch up with him.

The three supposable cases just referred to, in which prices would be steady, must be those three in which production would be steady, and they are these: first, where there would be equal under-production; secondly, equal over-production; and thirdly, no under-production and no over-production whatever, but production everywhere balanced, within equal periods, by consumption. But temporary over-production in some quarters being possible by means of loans of money, and therefore variation in prices,—first up and secondly down,—metallic money without banks affords the greatest possible steadiness, or, more properly, the least variation from steadiness. Why is it so? My reasons are peculiarly my own, as are those I have given for the general cause of unsteadiness; and they are these: The commodity value of money lies wholly in the goods it buys; hence the bullion value is the result of money value, and not the cause of money value. Metallic money in the hands of its owners is, in the absence of banks, the equivalent of so much production balanced by so much consumption, which is evidence of the two being near together. The mass of coin thus distributed is so large in proportion to the annual coinage, even when mining is most productive, that the additional circulation caused by the new annual coinage can never very largely exceed, while it cannot fall much short of, the growth of commerce; and the growth of general and real commerce means the growth not only of production and distribution, but of consumption. Metallic money has been the money of commerce for ages. In the hands of its holders it is universally distributed; it is demonstration of so much commerce that has taken place; while, for these and the reasons given before, it stimulates and at the same time keeps production, for all practical purposes, harmonious.

Hence, and for these further reasons, again I affirm, there is no such thing as a single standard or a double standard,

excepting the unit of weight, although the belief seems to be universal that there is. While Standard as applied to purchasing power, and predicated of coin as metal, is, as I have said, born of Commodity, it is the father of Premium. The premium on gold coin existing sometimes when government or bank-notes are inconvertible, is supposed to be the depreciation of the paper below the standard commodity, gold coin. But this premium is entirely a matter of accident, greater under some, less under other, and under some circumstances nothing at all. If it were otherwise, it would be because gold coin in its character of commodity would be possible, but as money, impossible. If gold coin bear a premium in inconvertible government or bank-notes of undoubted character, having the same power with it of paying all debts except certain debts to government, then a premium arises from that fact, or from the fact that coin can be used abroad, while the paper cannot. If the coin were a standard, the loss of conventional value in the notes, in consequence of overissue by the government, largely increased by the expansion of circulation through banks, would be the exact measure of the premium. This never has been the case, because, as I have fairly demonstrated, the supposed commodity value of money has no existence. It is mathematically impossible, because money has value only as a unit in the numerator or denominator of a ratio, and afterwards conventionally, in the equation of exchange. It is a commodity only, when sold as bullion. If, by undue expansion of circulation, purchasing power loses fifty per cent. while premium rises only to ten per cent., gold coin has lost in general purchasing power fifty per cent. with all other money, and has, as money for special purposes at home, or to send abroad as money or commodity, or to sell at home to be manufactured as commodity, risen only to ten per cent. premium.

The remaining question, then, is as to metallic supply; and this is a question of considerable importance. Germany and the Latin Union have demonetized silver. What is demonetization? Gold and silver, by units of weight, weighed by seller and buyer at each purchase, as happens at times in

mining districts, assayed by governments or individuals, or assayed and coined by governments or individuals, have for ages been the money of the commercial world. The relations of weight in the units have been already stated with rigorous exactness. If $15\frac{1}{2}$ and 1 were the proper ratio, as it probably would be very nearly were Germany and the Latin Union to remonetize silver, then there must have been approximately fifteen and a half pounds of silver in coin for every pound of gold in coin; and this ratio has been maintained for a considerable period, notwithstanding great variations in the production of each metal. Hence it follows that there are, and for some time have been, approximately equal amounts of silver and gold in coin, in point of value, throughout the commercial world. It further follows that approximately equal amounts, in point of value, are now existing in a manufactured state. If we take the ratio of 45 to 1 as the probable average production of silver compared with gold, then there must be approximately fifty per cent. of the value of all the gold coin now existing, in the shape of manufactured gold, and a like proportion of silver. There is sufficient approximation to the truth here, or upon the average of this and all other estimates, to show that there is a very nearly equal amount in value of the two metals in the arts, and at the same time a very nearly equal amount in money. The demonetizations referred to will diminish the coinage and somewhat the production of silver, and in a like proportion increase its manufacture for purposes other than money, while as a necessary consequence the manufacture of gold for purposes other than money will decrease, and for the purposes of money increase. This is one of the great benefits resulting from the use of such metals as silver and gold, possessed of such a kind of utility as commodities, that while they are not indispensable, arts and manufactures will take all that can be shared, subject to the condition of keeping the bullion ratio steady. The cheapening of gold, — that is to say, its loss, or its tendency to loss, of conventional value in exchange, — by its vastly increased production, through the discovery of the gold-bearing lands of

California and Australia, caused a corresponding increase of manufacture for purposes other than money, and a decrease for a time in that of silver. The demonetizations of silver will be largely compensated in this way. In the next place, as the disuse of silver coin progresses, the use of gold coin, which has been used less before, because there was more silver, will be used more hereafter, for want of silver. In the third place, the silver of Germany and the Latin Union will continue to circulate at par, notwithstanding its loss of fifteen per cent. in bullion value, until gradually replaced by gold. In fact, there is nothing in the way of its always circulating, and being in fact somewhat increased, as before shown in the supposed case of gold, should actual or imaginary scarcity of gold render it desirable. If the danger from counterfeiting turns out to be much less than expected, the use of the present silver can be continued indefinitely, and the demand for gold for coinage will be to supply only the future increase of coin demanded by the ratio of increasing commerce. That increase bids fair to be supplied by the increase of banks in Germany; and this "economy" of coin through banks is a potent cause which will help to counteract an advance in the purchasing power of gold. This cause is the most potent of all. Were silver and gold generally and equally monetized throughout the commercial world, one half of the value of each in coin would be kept in manufactured commodities, as the result of maintaining an equal distribution of conventional value. Bullion value is an effect, and not a cause. It can never exceed conventional value, and within the limits particularly mentioned in this chapter it will fall below it; an instance of which now appears in the case of Germany and the Latin Union. The bullion of their total silver and gold in the shape of and as coin is worth, in general conventional value in exchange, by equal weights, in the ratio of 2 for silver to 81 for gold, but as bullion, silver is worth fifteen per cent. less. It is open to all communities, through government action, to adopt the same course, and coin and issue silver at the old ratio. It will circulate at the old ratio as long as its total falls considerably short of the

total metallic supply the country requires, gold necessarily remaining to supply the deficiency, and maintaining all the metallic units in circulation; the gold performing all the exchanges in international markets. There is no difficulty in using silver in this way in home commerce. The real question is, whether it would be convenient or desirable to so use it. No other government but the United States would be likely to attempt it. If France had as little silver as the United States, she would never be guilty of the folly of loading herself with it until other nations were ready to share the load with her.

The great difficulty to be encountered, first of all, by anyone who attempts to discuss the subject of free coinage of silver, or, what is the same thing, free purchase by government of all silver offered, and coinage and issue on government account, is to have a fair hearing from those who have made it a party question. It is the same with a "tariff for protection." The views of all extremists are, for the most part, wrong, considered by themselves; and the reason why, on the whole, a correct line of action is sometimes developed practically from such views, either socially or politically, is the fact, that the resulting line of action is the medium line between the extremes, where, approximately, the truth lies; which is followed, not as the rule of reason, discovered by reason, but the line of approximate truth, resulting from the mutual action and reaction of oppositely erroneous opinions.

It is supposed by the party who oppose the free coinage, or free purchase and coinage of silver by the government, that it will make "cheap" money, because silver bullion is worth so much less than it was. They think that the present loss in barter rates between silver and gold, on the part of silver, will make the silver worth less than gold by something like the apparent present decrease in its barter rate as bullion, when it comes to be used as money. Again, some think that the owners of stock in silver mines will profit largely and unjustly by free coinage. These are some of the errors on one side. The owners of stock in mines lost by the European suspensions of free coinage; that they might gain

by free coinage, on the part of the United States, is a circumstance for which they are no more blamable than the governments who caused their loss by the suspensions of free coinage. As to cheapness, it would undoubtedly be the dearest undertaking, in the way of coinage, the government could embark in. Silver would at once rise, and continue to rise as soon as the law establishing free coinage or free purchase and coinage had passed. It is doubtful, moreover, whether free coinage at the ratio of 16 to 1, even admitting the immediate result of such a coinage to be a rise of barter rates on the part of silver in London from $17\frac{1}{4}$ or $17\frac{3}{4}$ to $16\frac{1}{4}$, thus leaving the barter rate of the United States short of the commercial world's rate by only one half pound to every sixteen, or say three per cent., or a coinage at any other ratio, would furnish silver enough before convertibility is reached, to take the place of the departing gold. Free coinage might come to an end before that event, by the act of the owners of silver bullion. The gold coin of the United States will not be purchased at a premium to remit abroad, and will only leave after convertibility is reached. As to what is called contraction and expansion, in the popular sense, there would be, after convertibility is reached, and after the silver required had been all coined, perhaps, three per cent. more of silver, in the shape of coined dollars, multiples of dollars, and fractions of dollars, than there could have been of gold in the shape of dollars and multiples and fractions of dollars, at the same period, if the free coinage of silver had not been established, and further, if no treasury notes were left outstanding in either case; but the existence of any excess is doubtful. This would be the natural result of the causes which would carry up and maintain the commercial world's barter rates in London at sixteen and a half pounds of silver for one of gold.¹ The permanent establishment of the

¹ Silver has fallen in London relative to gold, in consequence of the late demonetizations, say some of the London financial authorities, since the report of the commission on East Indian prices before and since the falling off of silver in barter rates with gold. That is undoubtedly true in the London market; but suppose the Latin Union alone to have stopped free coinage of silver, and Germany retaining silver as her standard, to have continued it. Silver bull-

barter rate, at the latter figures, would be a demonstration in figures, that after supplying all the additional demands for silver to be used in arts and manufactures, in consequences of the cheapening of its barter rate compared with gold through the action of Germany and the Latin Union, and the demand of the United States for purposes of coinage, three per cent. more silver dollars of the United States, after a considerable period, might possibly be in existence, than there would have been of gold dollars of the United States, including all multiples and fractions, had the United States refrained from the free coinage of silver without keeping in circulation any treasury notes in either case.

But if the United States, in case of such free coinage of silver, refuse, through Congress, to allow any treasury notes to remain outstanding after convertibility, — retaining and retiring all as they come in, if able to do so, while, on the other hand, refusing to coin silver freely, they would supplement gold by an issue of one hundred millions of treasury notes, to remain in circulation for a long, perhaps an indefinite, period, there would be a much smaller number of silver dollars and their multiples and fractions in the first case supposed, than of gold dollars and their multiples and treasury notes,

ion would have fallen in London, relative to gold, but in Berlin and other parts of the German Empire, gold would have risen relatively to silver. But it is impossible for both these propositions to be true, unless gold has risen as much as silver has fallen; which is undoubtedly the case, although, in the language of the London bullion market, silver has fallen while gold has remained stationary. Here we have incidentally a practical demonstration of the *a priori* demonstration given in Chapter I. and elsewhere, that purchasing power can neither be increased nor diminished in the abstract, and that a loss of it by partial demonetization in one metal is equaled by the gain in the other. The exchangeable value of a unit dollar in gold, for commodities, determines the commodity value of its bullion, compared with other commodities; and for reasons already given, a paper unit may do the same. In this way bullion values were cheapened relatively to all other commodities by our present inconvertible currency. If the gold unit had been, as such, a commodity, this would have been impossible. Barter rates between metals in London, do not indicate at this time that there has been any change effected as yet in the relative purchasing power of silver where silver is still used, nor of gold, where gold is still used. An inquiry whether gold had risen in purchasing power in England, would have been as much to the real point, as an inquiry by commission, about prices in the East Indies.

their equivalents, dollar for dollar, in the second case. There is probably now existing in coin a sum of gold dollars and their multiples sufficient to resume "specie payments" if there could be an adequate retirement of treasury notes and bank-notes. What is wanting, is some additional coinage of gold, perhaps; but the great want and the great need is a contraction of the volume of treasury and bank-notes to a sufficient extent, and gold enough in the banks, in the treasury, and in the country at large, to maintain the convertibility of say one hundred millions of treasury notes and two hundred and seventy-five to three hundred millions of bank-notes. Silver cannot be coined fast enough; and if it could, its barter rate with gold would probably be carried too high or too low in the ratios established for the mint. At 16 and 1, it would probably be too high. Too low a ratio would send it all away; too high a ratio would send all the gold away, and leave a barter rate of exchange against silver, to be settled by allowing a premium ranging from one to three per cent. to bills of exchange on outgoing merchandise, to be paid in the end equally by all merchandise and so by all commerce, internal as well as external. There could be no national loss on this, because it is a mere arbitrary rate, having no reference to home prices, but arbitrarily allowed to outgoing merchandise, which is the foundation of bills of exchange, in order to settle the barter difference of exchange of the two metals as established in the United States where the outgoing merchandise is shipped, and the barter rates existing in the ports to which the outgoing merchandise is sent. But should it become necessary, as it sometimes would, for the United States to remit metal abroad to pay its naval, consular, diplomatic and other expenses, or should it become necessary for merchants to ship silver, there would be an arbitrary though real difference to be settled, for which there will be no compensation in point of real values. It would create so far a real charge, to be paid without compensation by the people of the United States in the case last supposed. France has trouble enough with her silver; but she will maintain its purchasing power by keeping its whole volume in

units much less than the total of metallic units of gold and silver in francs, which her needs require. But after convertibility is restored, she would not be able to maintain as large an issue of bank-notes as she could do if her silver could be partly unloaded upon some nation which might, single-handed, undertake the task of giving free coinage to silver. So far from banks being likely to suffer injury from the free coinage of silver, it would be a benefit to them, in the way of redemptions, if they keep their own redemption reserve for bank-notes. It is international commerce which will be needlessly embarrassed : it is home commerce which will be loaded down with the weight of silver : it is the people at large, and not bankers alone who ought to object.

To sum up all that can be said upon the subject of standard and double standard, metallic money is no measure of the depreciation of paper money, nor is the latter a measure of the depreciation of the former. In this sense, standard is imaginary. There is some foundation for the prevailing opinion that metallic money is such a standard, however, as there is for the opinion that while still money, its metallic material makes it a commodity equally with bullion, and that equations of exchange, effected by loans and checks, are mere set-offs. There is a limit to the manufacture of metallic units in the material of which they are made; and in view of their immense accumulation, general distribution and steady ratio of increment, they furnish the nearest approach to invariability of purchasing power which is possible or conceivable. Paper money has no such limitation, and hence the necessity of limiting its units, whenever employed in equations of exchange between buyer and seller, by metallic units thus distributed. To give paper units and gold and silver units taken together, the same steadiness of purchasing power with metallic units, when circulating alone, there must be some definite proportion established between the two, unless the units of paper, as compared with those of metal, form so small a part of the whole currency as to avoid all danger of excess. To the truth of this exception, witness the volume of bank-notes in France, and bank-

notes issued upon government debt in England. The only test of the maintenance of a steady proportion between paper and metallic units is the maintenance of a steady proportion between the totals of bank debt, whether in the form of circulating notes or deposits and metallic reserve. The office of gold and silver is thus, while constituting a part of the whole circulation, to limit the remainder in the form of circulating notes, and to limit also the economy of metal, — the economy of metal being the difference between the metal in the reserve and deposit debt due from banks, *minus* that metal. For this purpose all banks are to be regarded as one. The right to issue notes and the right to economize metal and notes in banking reserve, are substantially one and the same thing. A bank of deposit-loan economizes metal or metal and notes: its debt over and above reserve is the measure of that economy, and takes the place of a like amount of metal, or metal and notes. Every payment is made out of units in its reserve. If it were not so, a very small sum would answer for reserve. Either units of bank debt or units in the reserve are transferred by check in the equations of exchange, the money side of which is not originated in bank, as generally supposed, but only registered there. If units of debt and not units in the reserve are carried into the equations, then *all* banks are banks of issue. The loans in that case constitute the issue, and the units of money limited by the terms of the loans are transferred in the equations of exchange by check. A duly proportioned reserve is therefore as necessary against deposit debt as against debt by bank-notes actually delivered over bank counters.

Standard, as metallic commodity, has no existence. There is a standard necessity, however, for dividing metallic commodity into units of metal by weight, before using it as money. Value, aside from actual use, as applied to metallic or any other money, is an abstraction. One thousand millions of units will value as much as five thousand millions. To add a unit, or to take one away, makes no difference with a series of units having no relation to any other units. The relations of gold and silver must therefore be by weight,

excluding all intrinsic qualities. More than fifteen times as many units by weight can be made out of the silver left after the commodity demand is satisfied, as can be made out of the gold left, after satisfying the same demand. Hence, if gold and silver were equally money, and the only money, without the practice of economy of metal anywhere, the tendency would be to coin an equal number of units of each kind, and purchasing power would be equally divided between them, because each would have an equal number of units. It would be then as it is now, — absolutely impossible to get rid of the superfluous weight of silver, because, by doing so, the number of units would be made to vary, and number, although absolutely unimportant, is relatively important. Abstracted from commerce, then, money is but a series of units having no value, because no relation to any other units. It is immaterial, therefore, what the units are made of and what is their number, outside of the commerce of actual exchanges. When applied to the purpose of those exchanges, limitation, or, in other words, steadiness, becomes essential; and here we have mathematical demonstration of the fact universally admitted, that units of metal are the steadiest of all measures of value. We have, at the same time, like demonstration of the total absence of any such thing as intrinsic or even extrinsic value in money, save as a substituted member in the equations of exchange. Money, when actually used, becomes in this manner a series of units which value the merchandise bought, and, at the same time, localized in some form, are made its equivalent. The theory of mercantile value in money, however useful in its place, is in true science false, and must be discarded in the management of banking reserve. The manufacture of the metallic unit is a question of numbers only, considered absolutely; and abstracted from any conventional relation to commerce, the unit as money, has no value. One series of units of a given weight is equal in abstract value to another series of a different weight, because one is equal to the other in the abstract equation of exchange, and the difference in the number of units which can be made out of the metallic material,

as one after another unit of weight is assumed, can be stated with mathematical exactness.

But when one or more of the localized and limited units are placed in some one of the millions of the greater or smaller equations of exchange which are continually being made and perfected by mutual deliveries, variation is unavoidable. If to-day one of the equations is 100 dollars = 100 bushels of wheat, the quantity of wheat on the one hand or money on the other may be indefinitely increased or diminished by to-morrow. It may be $100 +$ or $- x$ dollars, wheat remaining the same, or $100 +$ or $- x$ bushels of wheat, dollars remaining the same, to-morrow. The wheat must vary annually; the dollars ought not to vary except with the units of all commodities, to exchange which for the wheat and other necessities is the most important function of money. The units of metallic money scattered by commerce and not consolidated out of numerous individual reserves into one or more, so as to permit loans without any limit but a banking crisis, to be made from the supplying current of units through deposits, furnish equations of exchange with the least possible variation in the unknown quantity x , on whichever side of any given equation it may be found. A currency like that of France, for the most part, avoids all loans out of the supplying current of deposits, which go to increase production, and with it that extra circulation of money, which first expands and afterwards contracts the variable quantity x , in harmony with production and not with commerce. The quantity of metal in the unit is material only as it limits the whole number of units that can be made: the name of the unit has no other relation to the quantity. In no other manner than this can it be demonstrated that the popular idea of metallic money as possessing the highest attainable degree of stability of exchangeable value, in all equations of exchange, is true. That metallic money, like all other money, is but a series of units, is proved by the fact that as units in the equations of exchange, neither metal has gained or lost; while as metallic materials, they have changed their relations of value reckoned in each other

fifteen per cent. Were they changed fifty per cent., the principle would still be maintained. Banks do not make the equations: they are made by buyers and sellers, and banks register the changes in the ownership of the units on the money side. As a *result*, but not a moving cause, bank-notes are returned to the issuing banks and bank debt is canceled. This is no part of the equations, but the *result* of making them. To assert otherwise is to assert that banks are buyers and sellers. They register the transfers of the units of money which constitute one side of the equations: they do not make the equations. Contraction of loans leads to contraction of circulation, and this to contraction of the variable quantity x , on the money side, because production has reached its limits, and labor has less money. Contraction of the variable quantity x , on the money side, always begins to take place before an industrial crisis.

In no other sense than that stated in this chapter is standard or double standard possible or conceivable. Standard metallic commodity, measuring as metallic money, the depreciation of paper money when compared with itself must have arisen from confounding purchasing power in the abstract with purchasing power in fact. These are two very different things. Divide the mass of each metal into as many or as few units as you choose: conceive of each mass as one unit at first, and afterwards divided and subdivided into ten thousand million pieces, called dollars, and the purchasing power of each series, beginning at first with two only, is the same; but a vast number of accidents and incidents occur to vary their purchasing power when actually exchanged for commodities. Metallic money must therefore be regarded from different points of view. The development of exchange of any kind, as the condition precedent to society, shows that money is in its origin a mode of valuation by units, each commodity furnishing units for the other, the whole number of units being limited by the commodities exchanged. The next advance is to limit the units by one or more commodities only, and to make the units thus localized and limited, not only measuring units of value, but conven-

tional equivalents in all equations of exchange. The first equation of exchange was x horses = 12 cows, or 12 horses = x cows. The determination of the unknown quantity x being settled by mutual agreement, mutual deliveries followed. The introduction of money converted the equation into 12 cows = x dollars, or 12 horses = x dollars. In principle the exchange remains the same as at the first stage of development. At the first stage the commodities were brought together; at the second stage this was rendered unnecessary; but the principle upon which the valuation was made continued the same because it was absolutely impossible for it to be different. Commodities were at first estimated in the equation of exchange relative to each other, by units: they have ever since continued to be so valued, notwithstanding the invention of money. The introduction of money made the valuation as well as the exchange, easier, but introduced the danger of excess, defect and variation in the number of valuing units. This danger has been met and obviated by the use of gold and silver, scattered everywhere by commerce, as in France. The danger has been reproduced and followed by disastrous effects through "economy" of metal, out of which the units are made, in nearly all countries, but preëminently in Great Britain and the nations and colonies allied to her.

The valuation and exchange of commodities, under all circumstances, however complex, still continue the same, and the problem is, how to limit economy of metal and paper money by units of metal scattered by commerce, as of yore, and even now in France. Commodities are still valued relatively to each other by units: the difference between barter exchange and money exchange in principle, — to say nothing of the absolute necessity of money to commerce and civilization, — is that commodities need not be brought together, where money is in use, and when money has been received by a seller, he may locate his power of exchanging upon any commodity he chooses. The development of units limited by commodities exchanged into a series of units localized in one or more commodities, is shown in the first chapter, which

treats of the development of money and its uses. The mode of valuation is by ratio or proportion, and therefore by units. The units of commodities reckoned in money give price, and the units of money reckoned in commodities give purchasing power. Money must be used by every one who buys or sells labor or commodities. The mischief which lies at the very threshold of money, after the increase of production, through increase of loans, by bank agency, intervenes, is, that the apparent rise in value, through rise in price (which, if it occurs at all, is for the most part real when metallic money, scattered by commerce, as in France, is alone paid out and the only money loaned), is still supposed, notwithstanding the difference in conditions, to be equally real, although such conditions naturally and necessarily give only a nominally rising scale of prices through artificially increased production, following artificially increased loans. This turns production and commerce more or less into games of chance, and here lies the foundation of what most writers call speculation, which is a word without any definite meaning. But development aside, there is a mathematical impossibility of any other mode of valuation but that of units of goods and units of money, buyers and sellers establishing the relations between the units of each kind, and thus obtaining the elements of the equation of exchange which naturally follows. We have practical demonstration of the same law in the fall of silver bullion reckoned in gold bullion, fifteen per cent., while the purchasing power of the units of each metal remains the same. Had the fall of silver bullion been fifty per cent., purchasing power would have remained equally unaffected. The barter relations between the metallic materials of the units settle themselves with almost mathematical exactness, because there are no complex elements to be calculated between the units of valuation before the equation of exchange between them is perfected. The owners of cattle and horses, in countries occupied by roving tribes, whose property lies chiefly in flocks and herds, have complex elements to calculate before settling the terms of the equation; but the owners of gold and silver bullion have only the simple one of weight, which

is estimated without difficulty. Herein lies the true objection to the free coinage of silver by any nation, which is not already burdened with it, until monetary science has advanced sufficiently to make it appear that all nations are bound to act together in a matter of common interest, when neglect to do so entails loss and injury.

It is the unit character of all money, the impossibility of employing it in any other manner, and the mathematical certainty of making a profit by the exchange, by selling coin as bullion without investing a dollar in merchandise, which would make it a matter of profit to buy and sell gold as bullion, should any great nation, now without silver, coin it freely at such a ratio to gold as would fall short from one to three per cent. of the general barter rate of the world. There would be a moral certainty of its losing all its gold, as the United States, some years since, lost all their silver. If the true nature of money were understood, no nation would attempt anything of this kind. It is mathematically certain that the unit has no direct relation to the quantity of metal which localizes and limits it.

Because it values as a unit, its valuing power in general prices depends upon the total number of units distributed throughout the world. Local rise and local fall of prices follow the disturbance of that distribution through war and violence, famine, national loss and gain in productive power, scarcity through war or accident, credits given by merchants on sales of some commodities, and gradual rise and fall of general prices through the systematic accumulation of its units in banks, whatever may be the material of the unit or the mode of its limitation. Hereby, through excess of loans over and above those which can be maintained, were the distribution of the units undisturbed, production advances in proportion, and in regular progression, and the expanded use of the valuing units with it, until it can go no farther, and a contraction of production, of loans and of money prices which is known by the name of Banking, Commercial and Industrial Crisis, naturally follows.

The quantity of metal in a unit being not an end in itself,

but only means to an end, should a government add to the quantity in its unit, its only effect would be a diminution, by a very slight ratio, of the total of metallic units throughout the world, although the ratio of increment of mass of metal in the unit might be large. The former ratio might be one per cent. while the latter would be ten per cent. The same principle would apply if the quantity of metal in the unit were reduced. If there were but one nation and one mint in the world, money would be always money, and never treated as bullion until sold as such for purposes of manufacture other than money, or sent to the mint. The duty of government, would be by maintaining the unit of weight of each metal uniform, to maintain a steady ratio of increment of units being coined, to units already coined.

CHAPTER XXX.

THE PURPOSES TO WHICH PRODUCTION ON CREDIT IS APPLIED: THE MOVEMENTS, BOTH SUBSTANTIAL AND SPECULATIVE, WHICH RESULT FROM THE USE OF THE CREDIT FUND SUPPLIED BY PRODUCTION ON CREDIT, IN THE SHAPE OF REALIZED TAXES, TARIFFS, INTEREST, WAGES AND PROFITS: DISTRIBUTION AND CONSUMPTION ON CREDIT: PRACTICAL REMARKS ADAPTED TO THE PRESENT CONDITION OF THE UNITED STATES: OF DISTRIBUTION AND CONSUMPTION UPON CREDIT IN EXPECTATION OF PAYMENT BY PRODUCTION AND EXCHANGES IN THE FUTURE,—CONSIDERED NATIONALLY AND INTERNATIONALLY.

PRODUCTION on credit is a new term which I have introduced, and it requires careful analysis to indicate its meaning in the extended sense in which I use it. To suppose that I mean by the term an excess of cotton or woolen cloth, iron, boots and shoes, hats, or fine silks *only*, would be a great mistake.

To produce gigantic results, causes as gigantic as the results are demanded. The articles enumerated do not constitute all the necessities relative to civilization, although they do constitute an exceedingly important part of them. There is less relative danger of these than of many other things being overproduced, because they may be said to rank next in order, if we include comfortable shelter, to absolute necessities themselves. Nevertheless, by the aid of modern improvements, they, and the raw material out of which they are made, can be, have been, and are being produced by nations possessing much skilled labor, much capital, and great energy, in excess of absolute necessities. The latter never increase in advance of population; and as to them, the range of waste

and economy is comparatively limited, while the range of possible economy in the articles enumerated is comparatively large. Such has been the fact for a long time, but it has been disputed by numerous writers who have followed in the tracks of older writers, and have almost compelled even the immediate sufferers from relative overproduction to suppose that their sufferings were imaginary. At last the truth, after so much practical and constantly accumulating evidence of its existence, has begun to dawn, and with a constantly increasing ratio of relative overproduction as commercial crisis after crisis makes its appearance, the minds of men are convinced that they have been mistaken in accepting abstract theories instead of plain facts, and they are anxiously inquiring into the source and origin of so much misfortune. The subject is vast, and, what makes it more difficult to be understood, it is exceedingly complex. It demands ability to comprehend it as a whole composed of almost numberless co-factors, working towards a joint result, and at the same time to follow up and lay open by rigorous analysis the separate operation and the source of each of the factors, considered by itself. I lay down this general proposition as the result of my investigations. After a careful examination of the whole subject for years, and after reaching mentally from one point to another in the progress of analysis, I have come to the conclusion that many of the opinions referred to and entertained by most of the later as well as older writers, are true in a subordinate sense. I say subordinate, because the investigators were unable to trace them back to the active causes, and therefore came far short of the truth. What they affirm is true subjectively and not objectively; as effect, but not as cause. This is preëminently the case in respect to this very question of relative overstock. It is certainly false in point of fact, to assert that there has not been a surplus of iron and other manufactured commodities that could not be sold for wheat or provisions. If it could have been sold for these, many establishments now closed would be open, and many hands now idle would be employed. Nevertheless, if I have demonstrated any

proposition whatever in the preceding pages to those who are willing to be reasoned with on this subject, it is that the absolute would control the relative, at short intervals, as the balance wheel of a great engine controls, at short intervals, the several parts, if there could be and were a condition of production and commerce as advanced as these now are in the United States, going on as easily and readily without the aid of the auxiliary exchange furnished by the use of money, as they now do with money. Laborers and producers must be fed ; bare walls and machines will not support them, and wages and profits to live upon, for long periods, could not be obtained by loans after capital had been locked up in overstock. The great loss in the overstock and the rise of the articles not in overstock and being constantly consumed, would check overproduction at such short intervals that we might well conclude that although M. J. B. Say's abstract proposition that there can be no overproduction, is not true, yet the periods would be seen to be so short by reason of the control over the production of relative in the limit to the production of absolute necessities, that for all practical purposes the proposition might be conceded. With money in use it is otherwise : money is in some way the cause of the difference, and I have endeavored to show wherein and why.

Again, Adam Smith and most English writers say, labor is the measure of values, and therefore the cost in labor of mining and smelting gold and silver is the cause and the measure of their value in exchange. It is inconceivable that the labor of a miner in finding or mining an ounce of silver, either in the past, the present, or the future, should determine its value in exchange at all times, or at any time, for a bushel of wheat or for anything else. It is easily conceivable, however, that if the miner cannot live, on the whole, as well at mining, and with as much gain and comfort as at some other occupation, he will leave it as soon as he can get away, and find something else to do ; and so of all occupations. As a result and not a cause, it may be said, then, not that labor measures anything, but that the active causes at work tend to equality of compensation in labor of the same

grade of skill ; and on the whole, therefore, to equality, after allowing for all possibilities.

Again, credit is said to be the cause of commercial and banking, and it might, therefore, be added, industrial crises. This again is true as an effect, but not as a cause. Production on credit is the cause, and credit is the result. If production on credit were continually balanced by sales to producing consumers for cash, there could be no such thing as a commercial, industrial, or banking crisis, because there could be no accumulation of stocks. The credit given by banks and capitalists who lend money is not the cause of a crisis, but the result of loans. If A. borrows ten thousand dollars in bank, and it stands to his credit without being used, it has no effect upon production. It is the use of the credit by taking money out of the reserve and paying it to labor, which produces the result called a crisis. Men are the actors, and loans of money the instruments, by which they enable labor to support itself through the purchase of articles which other producing consumers have produced and sold, while labor was producing the overstock. The real credit given in the case, is to the producer of relative necessities, who obtains absolute necessities upon the pledge of his overstock and capital. This is the real credit which is concealed by the auxiliary exchange of money, and stands behind it. Again, it is said that sales make deposits. This is impossible, because sales of goods arise from the production of goods. If there were no production there could be no sales, and therefore no deposits. Whoever buys goods with the proceeds of a bank loan, steps directly into the shoes of the producer, and it is all one whether the loan stands in the original producer's name or not. Deposits, therefore, represent so much production and not so many sales.

Deposits show the whole cost of production brought about by bank loans up to any given period, adding profits on all the different sales, not in a producing consumer's market, but in the market of purchasers who buy with bank money and have not yet sold in a producing consumer's market. The result of the whole process immediately before a commer-

cial and banking crisis, is a gigantic accumulation of results which will not pay the investors. It is, in a true and real sense, in its results, a system of credit, but not in its inception, as affirmed by Mill and Price. It is not ordinary credit, but the credit which results from using the conventional commodity or the conventional units of money in such excess of actual commerce, that a crisis is unavoidable. They (Mill and Price) call the use of money one thing, and the use of credit in bank another thing. Here lies their mistake. There is no ordinary credit used: that is simply impossible. What really takes place, is a circulation or use of money into and out of and in the reserve, through the instrumentality of loans to producers in excess of sales for cash. I mean by cash, money received from buyers who, with money not borrowed, buy to consume, or to sell to those who will consume. Production on credit through bank loans comes from the loan and use of money oftener than it is returned through the exchanges from the market of producing consumers, who have mutually exchanged productions through the instrumentality of money. Credit is the *result* and there is an immense accumulation of it, before a commercial crisis. Mr. Price makes one remark in his Principles of Currency, which, if followed up, would, like a clew in a labyrinth, lead out to the light of fact and truth. He says a perfect bank would be one whose payments and receipts were equal. If all banks were of this kind, there could be no banking crisis, because the exchanges of commodities would equal their production. The nearest practicable approach to such a condition, after production on credit has reached as high figures as it will bear and can sustain, is what I mean by a regulated ratio of reserve to bank debt. This would be the only method (if indeed it be practicable at all) of carrying out the suggestive remark of Mr. Price.

But I have said that production on credit does not end with an excess of such articles as cloth or iron only. If this is true, it does not end with commercial bank debt, moving as an instrument, and but once only, the money in the reserve. It is used again and again, and commercial bank

loans, vast as is their volume, are only the foundation upon which the grand superstructure of production on credit is built up. They furnish out of total banking reserve in the shape of metal and notes in England, and the United States, the currency which runs into and out of banking reserve through payments to and from depositors, and the resulting payments to and from other sellers and buyers everywhere. This rapid movement of currency is what Mr. Mill calls rapidity of circulation. It is not rapidity of circulation, in a producing consumer's market, but an increasing use of deposited units of valuation, purchase and payment in the shape of coin and notes, proportioned not to consumption but to increasing production. In all exchanges, those of money on the one hand and goods on the other, there is a comparison made between the things exchanged. On the side of money it is a unit only, because money has no conceivable relation to all other things exchanged for it, but that of abstract units. Hence all capital and goods are valued in units of money. That is the mode of valuing one estate as compared with another, and one stock or parcel of goods with another ; as when we say, A. is worth ten thousand dollars, and C. and D. have stocks of goods, respectively valued at fifteen and twenty thousand dollars. Upon the same principle, the commission appointed of late in London to ascertain by tables of prices in India, before the late demonetizations in silver, and tables of prices there since those demonetizations, whether the fall in silver bullion had changed general prices in India, declared as the result of the inquiry that no changes were discovered ; and the conclusion in London was, that silver had only fallen relatively to gold. This is apparently true in London. Silver has fallen in rates of barter exchange as bullion, with gold in the London market ; but in markets where silver is the standard, gold has risen. Gold must have risen, therefore, one half, and silver must have fallen the other half ; the rise and fall of each being mutual equivalents. In common parlance, however, it may be said that silver has fallen all the way in London, instead of half way. It is of no real importance in what terms the barter exchange is stated, ex-

cept as it may aid in furnishing correct ideas about money. The important fact to notice, is the verification furnished by the two tables of East Indian prices, of the *a priori* demonstration, and the demonstration by analysis, that money is a series of units limited as already stated, which I have given in various forms in the preceding chapters. Commercial banks furnish, through loans, the units of money which buy the necessaries of every kind consumed by a very large number of laborers of all sorts who are out of the agricultural field, which furnishes the absolute necessaries of life; and in point of science it is immaterial whether the units are counted out in metal or paper: it is only a question of proportion, of limitation, and of steadiness. Vast sums are deposited by laborers in savings banks, and redeposited by these in commercial banks. The latter deposits are not used merely once for all: they are loaned out on the checks of savings banks, and deposited and redeposited from time to time. We must look to savings-bank loans if we wish to get any idea of the immense amount of production on credit continually occurring. The savings banks thus become, not the originators of production on credit, in a banking sense, but the potent auxiliaries of commercial banks in maintaining it.

Again, furnaces, mills, and factories produce immense quantities of iron and iron rails, lumber, building materials, cloth, etc., largely with, and partially without bank loans. Large quantities are sold to buyers who purchase with the aid of commercial banks, and to some extent savings-bank loans, and pay the producers with the proceeds long before producing consumers buy with cash. This furnishes an immense fund out of which wages, profits, and dividends are paid over to different persons from the proceeds of sales of goods, which are yet waiting for buyers who have cash derived from sales in the markets of sound commerce to producing consumers, who have bought goods to consume, or to sell to those who will consume. The enormous fabric thus built up increases by expending the profits and dividends thus earned in the erection of houses and warehouses, and in the purchase of land, whose value rises with improvements

and prospective improvements. This land may be bought for cash or for a payment in cash, and a promise of future payments, secured by the land, or unsecured. Another part of the same profits, interest and dividends, may be invested in railroad stocks and debentures; in town, city, and county bonds, given in aid of railroads, and to make municipal improvements, in advance of the surrounding country.

This is a part of the grand system which I refer to under the term Production on Credit. It has been of late enormously increased by the loss of a much larger portion of our national debt than ought to have been sent abroad at low figures, in exchange for English goods at very high figures, and for luxuries, some of which we could have dispensed with, while the consumption of the latter was largely increased by the increase of the very cause which continually made us less and less able, as it progressed, to buy them.

The grand business of the world is production and exchange. Unless and until production—the business which is the source and origin of money exchanges—is disturbed in some way, there can be no serious disturbance in the money exchanges themselves; for inability to make the money exchanges necessary to pay debts, comes from inability to sell the products of labor. All this results from the conventional value of money: the fact that it is used, is what gives it value as money, and probably seventy-five per cent. of the supposed intrinsic value in gold coin depends upon the fact that it is so used. Whoever sells goods for money, is by universal convention credited with the right to buy with it any goods he wants. This is all he stands credited with, because it is all he has given in exchange. To credit those to whom banks, by the aid of the incoming stream of deposits, may lend money with anything whatever, is to credit them in excess of what all depositors as a whole, are, by original convention, entitled to; and to do so must necessarily block the regular exchanges of commodities, unless some definite limit to the use can be fixed. If money is used in excess of real exchanges, it must inevitably be used in producing commodities in excess of those exchanges. The very essence of such excessive use lies

in the fact that those who so use money stand debited to the actual exchanges to the precise amount by which they thus use it,—in other words, put it in circulation; in still other words, cause expansion of circulation. This debit can never be extended far, where money and commodities are distributed together, and the money is not banked, because the money can only come into each money reserve as fast as it comes through the regular exchanges of commodities, and therefore of money itself,—in other words, actual commerce.

Bank-notes, in the absence of deposit loans, being distributed with commodities in the course of national commerce precisely as gold and silver themselves are, can by no possibility be used in any different manner from gold and silver themselves when so distributed, except through excessive issues which deplete the redemption reserve; and this, as Adam Smith plainly proved, must soon come to an end, as in the case of the Bank of Ayr. It is not bank-notes, then, without reference to deposit loans, as commonly supposed, whose overissue causes commercial crises; it is the unlimited use of the same money over and over again in excess of the actual exchanges in producing consumers' markets,—a use unlimited in the very nature of things except by a crisis,—which in reality constitutes the credit of which writers speak. This use applies to gold and silver, or paper covering exactly equal amounts of gold and silver, as well as to ordinary bank-notes or government notes, under a system of deposit and discount banking. If there were no gold and silver, but only a limited amount of government or bank paper, circulated as gold and silver and convertible bank-notes are, the principle would be the same. It would be precisely the same thing if a limited amount of units of bank credit without any reserve were put in circulation by checks. If all money were kept in deposit, and no bank loans were made, the whole volume of units of money being meantime neither increased nor diminished, there could be no excess of circulation over and above the distribution of commodities; but as soon as loans were made, the conditions rendering an excess of circulation possible would at once arise.

The banking would consist in the deposit of the universally recognized units of value, purchase and payment, whatever the material or form they might appear in, and lending them to borrowers, retaining enough to pay depositors. In the case of the units of bank credit,—were they deposited,—the conditions necessary to making loans would always exist, because they would be, from the start, localized on the bank books. In the other case, they would be deposited in the shape of notes; but in both, there would be no effect produced by the deposit until the banks began to make loans. The nature of all money is the same as respects production and exchange. The material difference lies in steadiness; and steadiness depends upon steadiness of volume and of circulation. It is said that a commercial crisis lies in the loss it produces; that is equivalent to saying that a cause lies in its effects. It is not true that loss is the cause, although it is one of the results. The Northern Pacific Railroad is not an entire loss. That road and many others cost more than twice as much as they are now worth, because excessive production, while it is going on, advances prices. Other roads cost twice as much, and some less. But take all the new roads together, and most of them would pay, at half their cost. If a road, however, pays but little more than running expenses, it is a benefit to the country through which it is laid. Taking all the new roads together, the builders have builded, not wisely for themselves, but, in a limited sense, well for others. They have given lands an additional value, equal at least to what the roads are now worth themselves; but this additional value will not help the exchanges until the lands are occupied and the surplus produce sent to market. The loss then lies in the losses of those who have built the roads, and in the immense moral loss arising from their bankruptcy and ruin. Not to include the latter item, is to fail in a just analysis of the complex result. But again, the producers of iron have been the promoters of civilization and progress, by making and furnishing the iron rails, which, by being laid down, have caused such increased value to land. The loss lies also in their bankruptcy and ruin, and

the results which follow. We may add to these some of the producers of rolling stock and other equipments.

But the producers of cloth and of clothing have lost also. The losses of these producers, however, are soonest compensated, as far as compensation is possible, because the producing consumers' market catches up with their production soonest. These producers have not been making an entire loss for the whole country as asserted : they are merely ahead of time. The worst results are in the more speculative markets, where the investments were known to be of that character, but were rendered possible by the former. In the case of the iron and cloth, the buyers were involuntary speculators, because they did not know that they were such ; in the other case, the adventurers had reason to suspect that they were such.

The only remedy in the case, if possible remedy there be, is to regulate, by a fixed limitation, the original cause, and at a point indicated everywhere, limit actual producers and their co-partners, the bankers, by the same rule which limits all producers and capitalists in France. That limitation is the impossibility of borrowing after a certain point in production is reached, until there is a sale of what is already produced. But even then, production on credit would be allowed to a greater extent than in France. It would be allowed up to a point which would maintain a minimum average of reserve. As long as the reserve continued above minimum, loans could be made, and this would allow some production on credit in addition to what can be found in France, but would stop it everywhere at the same point, and keep it from proceeding so far that its only check would be a crisis. Producers would have all the benefit they might under any circumstances be able to receive from protection, because they would not lose in rising prices of absolute necessities more than protection could gain for them.

The only possible remedy, while banks of deposit and discount furnish the credit circulation of money over and above actual exchanges of commodities, out of which they, as co-partners with actual producers of all sorts, including, of

course, merchants, make their fixed share of credit profits in the shape of discount, lies in limiting the means which enable the production to go on. That it goes on by means of banking reserve I have demonstrated, but it is hard to understand at first thought, because the relation between banking reserve and production seems so remote. It seems remote, because the credit nature of all money is not perceived. It is almost impossible not to act instinctively upon the idea that gold coin is a thing valuable in itself, in its character of money. There is but one way to dispel the illusion, and that is to think of metallic money as valuing units in the reserve, placed there not by bankers, but by sellers who have brought the money from the market where they have sold commodities for consumption and have received the units in payment. To regulate the number of the units of bank debt by these units is to regulate loans by actual commerce, and not by production: it is to limit production by actual sales to consumers. But as bank debt rises with production, to regulate bank debt is to regulate production itself. In this manner, a true conception may at last be formed of the reason why metal is needed in banking reserve, and why needed to stand in reserve behind bank-notes. It is in order to limit the units of production, by units themselves limited by a metallic commodity, and distributed in proportion to the commerce of exchanges of actual consumption, and not of production. Upon the theory of money being itself a commodity, all that *can* be said, and all that *is* said upon the subject of banking reserve, for either banks of issue, or of deposit and discount, is unintelligible chaos. What is said in this chapter, if carefully studied, will enable the reader to understand the real causes of banking and commercial crises. What is needed in the United States, at this time, is a currency of steady purchasing power, which will harmonize production, and bring commercial, industrial, and banking disturbances to a minimum, under the present system of loans. This is a practical kind of political economy, or science of production and exchange, which is eminently needed at this time, and in which I invoke the aid of all conservative bankers as well

as thinkers. The subject is so new and so complex, that I have introduced it under every possible form, and from every possible point of view. The germ of all true conceptions of money lies in the masterly suggestion of the genius of Montesquieu, in the story of the African macoutes.

THE MOVEMENTS, BOTH SUBSTANTIAL AND SPECULATIVE, WHICH RESULT FROM THE USE OF THE CREDIT FUND, ARISING FROM PRODUCTION ON CREDIT IN THE SHAPE OF REALIZED TAXES, TARIFFS, INTEREST, WAGES, AND PROFITS.

In the chapter on Capital, Labor, and Wages, and in that on Interest, Rent, and Taxes, I have shown that taxes, interest, rent, and wages, are payable out of profits. Net profits are the remainder which is left as the result of production, after paying taxes, interest, rent, and wages, in the order named.

Now, if a considerable part of the whole fund consists of money received for goods sold to merchants, who cannot sell more than seventy-five per cent. of their product to go into consumption, in consequence of an excess of production on credit, it is certain that the money thus received out of the profit fund is in advance of a consumer's market, and its movement is therefore in reality speculative, although it carries the appearance of solid trade. Overtrading is not the active cause. It is excessive production on credit which has led the merchant, unconsciously, to overtrading; that is to say, to buying more than he can sell; and this may be called speculating unconsciously. If a mill-owner borrows one hundred thousand dollars from time to time, and makes a million yards of cotton cloth, and sells it to two merchants who hold it for want of a consumer's market, having themselves borrowed the money of the banks and paid it over with ten thousand dollars more as profits to the mill-owner, who pays over one hundred thousand dollars of it to the banks to retire his loans, the result is that one hundred and ten thousand dollars of new bank loans to the two merchants have taken the place of one hundred thousand in bank loans to

the mill-owner. The ten thousand dollars are profits on goods which have not yet found a market, because they were produced on credit in advance of all consumption which had been demonstrated to have actually taken place. These profits may be invested by the mill-owner, if he is the sole owner of the mill, or by the stockholders, if there be a corporation, in bonds issued by a city or town to make municipal improvements; in railroad bonds or stocks of a new railroad; in the manufacture of iron or of lumber and building materials or furniture; in the erection of city houses, or of stores to hold goods produced on credit; or partly in city lots to hold for a rise with a mortgage given for deferred payments. Profits of this kind, thus invested, arise very largely from discount and interest on loans made by banks to the mercantile community, who are drawn, by buying from first producers, into overtrading, not by any fault of their own; not by any fault of the banks; not by any fault of first producers; but by the paramount influence of forces which irresistibly compel all the actors in this grand drama of production and distribution on credit. This is the real credit at the bottom of all bank loans when in the rising scale. It is a credit resulting from the loan and use of units of conventional value called money, the payments of which are registered on bank-books; but the registry is not the payments themselves any more than the entries on a merchant's books are of themselves sales and purchases. In this manner and under the disguise of production on credit, taxes are paid upon credit; rent of houses, warehouses, mills, shops, and railroads is paid upon credit; wages are paid upon credit; interest is taken out in advance upon credit; and lastly, the surplus left after payment of taxes, of rent, of interest and of wages, is used by the owners of it to invest in further production on credit, until the foundation of actual exchanges is insufficient for the superstructure, and it tumbles to the ground. The chief business of the world being production and exchange, recovery follows first in that kind of production which comes the nearest to absolute necessities, and is therefore most rapidly disposed of. To understand the vast and complex

movements it is necessary, by the aid of mental discipline and reflection, to keep constantly in view the great difference between the mere volume of money — the total number of money units outside and inside of banks — and the use or circulation of that money. If the money unit be gold, with subsidiary coinage of silver and bank-notes, with a nearly equal amount of gold behind them, as in England, the range of prices upward may not be as high, nor on the other hand the range of prices downward as low, as if in the case of a merely convertible currency issued by the Bank of England, for instance, the number of units of pounds (in the shape of bank-notes) were fifty per cent. greater than it is when in the shape of metal, and notes mostly covered by metal; but the relative rise and the relative fall is the same in both cases. Deposit and discount banking is something peculiar to itself, and a standing proof of the fact that the use of money is, in its results, an efficient system of credit, and the only one which can by raising general prices maintain production on credit long enough to produce a commercial crisis. Prices may be made to rise rapidly by the abandonment of a metallic or convertible currency, and the resulting increase in volume, that is to say, in the actual number of paper units of the same name with the metallic ones, or slowly by metallic production in excess of commerce. This, for a time, stimulates production by means of rising prices, as production of all kinds was stimulated in Great Britain, after suspension of payments in 1797, by the Bank of England; and everywhere by the increase of units of gold and silver, after the discovery of America; but the additional use or circulation of money, whether in the form of metal or paper, by means of deposit and discount has no parallel in any form of credit, and is like nothing but itself; for it causes a rising scale of prices, through an additional circulation of all the money deposited over and above what it could have if not deposited. This additional circulation can take place only by unproductive consumption or by productive consumption in advance of a consumer's market.

More than three fourths of this additional use, however,

is applied to the latter purpose. If it were otherwise, if one half of the additional use were applied to unproductive consumption, nearly all banks would become bankrupt. As it is, banks have the producing capital of the country to exhaust, before they can be exhausted themselves. Hence producers, whether manufacturers or merchants, fail and become bankrupt in large numbers, while banks fail occasionally, and always lose largely when their producing partners lose.

The greater part of what is called speculation is the result of production on credit to excess. A fixed ratio of reserve can alone arrest the advancing current everywhere at a certain point, by preventing it from proceeding far enough to cause a crisis on a grand scale; consumption balancing all production that takes place so long as that ratio of reserve can be maintained; substituting, perhaps, a series of light and comparatively unimportant disturbances of the market of demand and supply for one grand and overwhelming crisis.

A crisis is not measured wholly by the inharmonious production of relative necessities through the aid of bank loans, although they are the active and primary cause. There is no proper word or term in the English language for a crisis like that inaugurated in 1873 in the United States. I have called the latter in this work, as I have called similar crises in the United States and Great Britain, a commercial, industrial, and banking crisis, to indicate that the commerce, the industry, and what is called the loanable money capital of the whole country affected, are undergoing great changes, and more or less in a state of collapse. But this expression, although the fullest and most complete which language furnishes, does not convey an adequate idea of actual results. The absence of a term adequate to the expression, and even the indication of all the important changes, furnishes proof of the fact that the active cause is not understood, or, perhaps, even imperfectly comprehended. Why should it be understood, when the nature of money itself is not? I have called the fund arising from sales of the results of labor which cannot find a consumer's market,

to intermediate producers in the character of merchants, — I might add “speculators” and adventurers who borrow of the banks to purchase those results, — the credit fund. This fund has, of course, no separate existence by itself, independently of that which arises from a consumer’s market. The two funds are found together, but it is essential for the reader to keep continually before his mind the difference between them. A stockholder who has stocks in two manufacturing corporations, receives, as I will suppose, ten thousand dollars in dividends at the same time, five thousand dollars from one, and five thousand dollars from the other. The dividends are declared upon net profits: these arise from sales to merchants; the merchants are carrying an overstock consisting of fifty per cent. of all goods on hand, and the fact that fifty per cent. of the total is overstock, is demonstrated by what follows. After the inauguration of the impending crisis, fifty per cent. of the stock is sold at auction, at less than half the original cost. The original producers in this case sold this overstock at a profit, and declared and distributed dividends on overstock as well as stock sold, as the result. Half the dividends were, perhaps, fairly earned, and could be declared as such; the remainder were in excess of actual commerce. The former came from substantial movements in the market of consumers; the latter from speculative movements in the market of producers. The corporations declaring these dividends are, as I will further assume, engaged in the manufacture of cloth. In the next place, we will suppose there are two corporations engaged in the manufacture of railroad iron. Dividends to the amount of ten thousand dollars are declared at the same time upon net profits: these arise, one half from sales to railroad contractors, who receive in payment for completed railroad track and equipments two thirds of the contract price in debentures of the railroad, and one third in cash; the other half from sales to replace iron on a road earning a fair income. To pay in part for the iron and for labor on the new road, money is borrowed from banks, and the debentures are sold to those who pay fifty per cent. of the

price out of corporation dividends declared in part by means of sales of overstock in the shape of cloth of the kind before mentioned, and the remaining fifty per cent. out of dividends declared by banks from profits by way of interest and discount, arising from the loans to those who have borrowed from banks to furnish some of the "cash means" required to pay the very laborers employed in constructing the railroad. To build additional warehouses, stores, shops and dwelling-houses, required for the increasing business resulting from sales of overstock, and to furnish building materials to erect them, large sums in shape of the same kind of profits are employed; and to make municipal improvements, corresponding in kind with the former, money is borrowed in part out of the same fund at high rates of interest, and expended at enormous prices in improving towns and cities away from the country, and in the purchase of land. So far as these results are sustained by sales of overstock in a consumer's market, made before, or as soon as the results are accomplished, the movements resulting from the use of the credit fund are substantial; so far as they are not, the movements are speculative, whether the operators know it or not. The taxes levied to pay the interest upon the sums borrowed to make municipal improvements at costly rates, are in part paid for out of the credit fund, and when that fails, out of the substantial production which supplies consumers' markets only.

The average credit fund which supplies a considerable part of the taxes, tariffs, wages, interest and profits of the tax consumers, laborers, banks and capitalists of the United States, a few years before a crisis is inaugurated, and for a short period afterwards, is supplied entirely by borrowing. There is no real loanable capital in the case: it is an enormous system of guaranteed production on credit, reaching in its cause and in its effects to every part of the country. The reason why writers upon money and exchange have not found out this cause is because they have not analyzed sufficiently; they have not studied the development of production through money as a conventional system; they have, it is

true, examined the subject deductively,— Mr. Mill and others declaring in substance that political economy must be investigated in this way, — but they have begun with secondary, which are only the effects of primary causes. The mercantile credit, which is supposed by Mr. Mill to be the cause of every commercial crisis, is only the final effect which results from the active cause. Wherever money appears it is universally accredited with the right to value, purchase and pay, for everything on sale ; the preceding chapters show what is the general effect. Money exchanges aside, and exchanges of merchandise only regarded, mercantile credit on an extensive scale is the result of a crisis. Manufacturers, merchants, railroad builders, and speculators owe the banks for their own support and that of laborers who have received nominally high wages paid for with bank-notes which have moved many times out of deposits, and back again as many ; the slight difference in volume of the two streams being the principal fact which rendered so much production on credit possible. All these debtors are debtors to the banks and to those who have received dividends, interest and profits, in consequence of bank loans ; but before they can pay their debts, they must exchange the results of their labor with those who have cash to pay for it. The manufacturer and merchant must sell their overstock to the producers of the absolute necessities of life, or those who have already exchanged with the latter : the owners of railroad debentures must offer them at figures much below cost, or wait without interest until the roads become more productive ; the over-taxed city or town must levy taxes entirely upon the production destined for a consumer's market, that destined for a producer's market, which caused the infliction of the present rate of taxation having vanished ; or, if bankrupt, wait until it is able to pay.

The use of money in place of one of the articles bartered naturally succeeded to barter, because it was developed out of barter. If society were still in the undeveloped state which barter implies, there could be no danger of commercial crises which result from a credit caused only by the ex-

cessive and unregulated use of money. If the laborers who produced the results which led to a crisis could not have been fed, the results would not have appeared at the time and in the manner they did, and the debts to the banks for the money exchanges which furnished the necessities of life to the laborers, and the resulting debt to the necessities of life due by merchandise not consumed, for merchandise consumed, would not have been incurred. Reasoning from such results as though they constituted of themselves the active and primary cause is like the reasoning of the famous Dr. Cullen as to the origin of fevers. Because medical science in his day had not traced the morbid results back to their primary causes, he attributed fevers to a diminished energy of the brain. The theory was better than none, but it was defective, because the premises, like those of writers upon political economy, contained only a part of the truth.

In like manner, the theory which refers all the phenomena of a commercial crisis to the failure of mercantile credit is inadequate to the full explanation of any of the phenomena. The use of a general buying power and not a credit power is the cause, and therefore one of the phenomena, must necessarily be a movement in recurring cycles of production and prices on a grand and general scale, and such all experience shows to be the fact. So far as advancing production is not balanced and liquidated by the cash demands of a consumer's market, or by its results becoming themselves productive sooner or later, the movement is wholly speculative, whatever its character, and one of the results is loss. Banks have no loanable capital in deposits. They loan money undoubtedly, but it is not their own, and their liability first and last is that of guarantors to their depositors. Because their loans are in excess of all the exchanges for labor, merchandise and all other capital which their depositors were entitled to or could make with their money had they never deposited, the banks loan no capital but their own, and the loans of conventional capital in the shape of money deposited which their customers borrow, being in excess of its natural and conventional use through depositors, can only be used in

unproductive consumption or production on credit. While, therefore, banks do not deal in their own debt or credit, but in all the additional circulation of money which they can cause through loans, over and above that which the owners can give it themselves, they become guarantors of depositors through bank capital. When they thus become guarantors their customers who borrow become guarantors to them. This is the kind of credit which in the guise of money raises general prices, and thus gives the appearance of profit to unregulated production on credit: the greater the total volume of money, the higher must be the range of prices caused by bank loans when in the rising scale. If the money consists of inconvertible paper like our present legal-tenders and bank-notes, there is no method of retiring it but by cancellation, burning, or locking it up where it cannot be put in circulation. Under a metallic or convertible currency, the contraction takes place by shipment or hoarding of the metal, or both; but this safeguard does not exist under an inconvertible currency. Had deposit loans in the United States been impossible at all times *since* 1861, prices would not have risen much above those which prevailed prior to that time with deposit loans and a volume of currency less by one half than that which is now outstanding.

The effect of deposit loans in raising prices under an inconvertible currency was not understood by the government nor by the people. I estimated the effect of the general expansion through deposits when in the rising scale, added to the natural circulation to be equivalent in its effect on prices to an issue of thirteen hundred millions of paper without deposits, in a pamphlet published in the spring of 1873; but this estimate was too low. Probably eighteen hundred millions of bank and government paper would not, under a system like that of France, have carried prices to as high a point as they actually reached in the United States. The effect of production on credit, expanded by the aid of bank loans in raising prices until a crisis comes, which checks production and circulation at the same time, is worse than that of mere overproduction considered by itself. Tax-

ation resulting from money borrowed and expended by cities, towns and counties, when prices are highest, is one of the heaviest burdens resulting from such a state of currency and circulation. The debts which require such taxation cannot be wiped out by bankruptcy, while individual indebtedness can. Individual gains and losses are fairly balanced, but there is no compensation by set-off for such taxation. The indebtedness requiring it must be paid by economy.

DISTRIBUTION AND CONSUMPTION ON CREDIT.

The losses arising from large issues of bank paper, as in England after the passage of the act for the suspension of payments by the bank in 1797, and in the United States by the issues of treasury and bank notes after the commencement of the civil war in 1861, were largely increased, as we have seen, by bank loans. England lost largely by being compelled to purchase gold in the open market to send abroad to pay her troops and furnish subsidies to her allies, and she was compelled to pay dearly for all the supplies she purchased. The latter may be said of the United States. But the losses accruing in the United States in this way are small compared with those indirectly resulting from the bankruptcies of individuals and increased local taxation. The active cause was the efficiency given to the power of loaning money through deposit and discount banking, already sufficiently explained. The greater the volume of money put in circulation by the purchase of labor, the greater must be the resulting losses, when loans contract, as the natural result of their former expansion. In the future, therefore, the United States might receive *some* benefit by gradually reducing the circulation of bank and government notes, and substituting very slowly a metallic circulation in their place, should the maintenance of a fixed ratio of banking reserve be found impracticable. The resulting benefit would be a contraction in the range of variation in prices, but not in the ratio of variation. The latter must always be the same wherever there is any variation at all, and there always must be variation, even under a

currency like that of France. This was well illustrated in Chapter V., by the inscribed polygons. Taking a polygon of forty sides to illustrate the production of relative, while the containing circle represents that of absolute necessities for France, and a polygon of eight sides to illustrate the production of relative necessities for England, — the containing circle representing that of absolute necessities, — the ratio between any two sides of the French is the same as that between any two sides (ratio of variation in prices) of the English polygon, but the length of any one of the latter (limit in time and range of variation in prices) is approximately eight times as great as that of any one of the former, while it is only a little more than one half that of the United States, whose production is represented by a polygon the sides of which are lengthened to and become those of an inscribed square.

By resorting to a metallic currency, however, while still retaining deposit and discount banking, without any limitation of loans by reserve, the United States would have no reason to hope that banking, commercial, and industrial crises would be avoided, any more than they have been by Great Britain. The only resulting benefit would be in the limitation of period and range of advancing prices. The advantages which might be supposed to arise in this manner to the producers of relative necessities, whatever they might be, would be small compared with what is claimed by the bullionists, both here and in Great Britain. The question of protection is really no longer a practical one, if looked upon in a correct light. A greater degree of patience, time, and care is demanded in the production of some grades of goods; but the United States have now arrived, as producers of relative necessities, at that point where the first and most important kind of protection they require is a currency, which, keeping loans and therefore prices steady by a steady ratio of reserve, will not allow them to lose the advantages to which the skill of their workmen, and the capital of their producers entitle them. If, on return to convertibility, such a ratio of banking reserve could be maintained everywhere,

in all banks in the United States, discriminating tariffs would cease to operate alternately as a tax and a bounty, in respect to many important branches of production, and the total tax collected by way of tariff would, to a great extent, fall upon that kind of merchandise which would produce the most revenue. A simplification of the laws relating to importations to the highest degree possible; the utmost freedom of commerce practicable, subject to the collection of the necessary revenue; coinage, by all governments, while still retaining the present names of coins, upon such a principle (by adding or taking away a little metal) that every coin would show upon its face, in addition to its own local name, that of one metallic unit, or a decimal multiple or divisor of it, — for which purpose the dollar of the United States would be the most suitable, because the unit of a perfect decimal system; remonetization of silver, by all the leading nations, and regulation of bank loans by banking reserve, are the matters to which the United States ought to apply themselves in the future. Silver cannot be remonetized in any effective sense by limited coinage. What is needed is, to remonetize silver fully everywhere; to fix the barter rates between gold and silver at a point which will give very nearly the average rates, if left to themselves, with the right to store silver with governments, if holders are willing to trust them, — the governments issuing certificates therefor. An issue by the United States of token silver in excess of actual wants for subsidiary purposes would be worse than useless; it would be a monetary nuisance: to establish free coinage for themselves alone at the barter rate or ratio between metals, of 16 and 1, would probably send away all the gold. In order to realize the full benefit of silver in the circulation, all nations must unite and fix the barter rate between silver and gold, so that both will be equally distributed. The production of silver is an industry which ought not to be allowed to fall off, because the barter exchange rates can be fixed between silver and gold without any difficulty, in case of the universal establishment of free coinage for both silver and gold everywhere, at a ratio probably not

far from 15 to 1. If fourteen fifteenths of the silver metal to be coined in that case, together with all that previously coined, could be given away by a general distribution without disturbing the ratio; or if fourteen fifteenths of it could be stored, and the remainder coined, without danger of counterfeits, — governments buying and coining all metal offered, — it would be well; but neither of these plans is available. General remonetization is desirable, in order to maintain in the steadiest degree possible the compound ratio of total annual metallic production in the shape of silver and gold to total metallic product in the shape of coin, and also in the shape of metallic manufactured commodities, as evenly as possible. To abandon the free coinage of silver perpetually in the United States and Europe would gradually raise the value of gold as coin, by raising its barter rate with silver, unless the extension of banking more than compensates for the rise. It would thus, as it is now doing, by cheapening silver, throw more of it into manufacture. But the cheapening of silver must in the end diminish seriously its annual production, raise gold relatively still more in barter rate, and ultimately in purchasing power. No rise in gold, however, to the injury of anybody, can occur, because its production will be stimulated as that of silver is depressed, and no sudden demonetizations are possible. Still, in the long run, the true policy will be to maintain the most perfect equilibrium possible in a monetary point of view; to avoid the objections to weight by deposit, and not to allow the production of either metal to fall off, not only on grounds of monetary, but also industrial, policy; but the United States must wait until other nations are ready. Nothing can be gained, either by the limited or by the free coinage of silver, in the way of prices, by the United States acting alone; and free coinage to an amount sufficient to inaugurate and to maintain convertibility, admitting its possibility, would require a long time. It would probably raise the price of the metal so much before convertibility could be reached, that individuals would stop sending it to the mint, and the general government would be compelled to buy metal and coin

for itself. This would cost more than to contract and retire a sufficient volume of treasury notes, and accumulate a sufficient stock of gold. With convertibility established, and a due ratio of banking reserve maintained, not only production on credit, but also distribution and consumption on credit, would be thenceforth brought to a minimum.

Distribution on credit has been already referred to, but not sufficiently described. It occurs, as already shown, when a merchant (who is a producer), standing between the first producer and a consumer, buys overstock by the aid of a bank loan from the first producer. Consumption on credit, by producers and their laborers, which leaves a tangible result behind, is all that consumption which results directly from production on credit, before any part of the overstock is sold; but if interest and discount are taken on account of those bank loans, which cause production on credit and overstock that will not sell, and the banks declare and pay dividends, founded upon such production and overstock, the receivers of these dividends and all others, laborers whose services leave no tangible result, especially, so far as they buy and consume absolute, or relative necessities including luxuries, by the aid of these dividends, are not only unproductive consumers, but to a great extent unproductive consumers upon credit. Under a circulation like that of France, the consumption of one who lives upon his own money receipts, including that of his menial servants whose consumption leaves no tangible results, is not consumption upon credit, because it is balanced by the productive consumption demonstrated to have already taken place, by the payment to him of the money. So if he buys silks or wines, and consumes them unproductively, the consumption is balanced in like manner. An excess of such consumption would show deficient energy of production, and nothing else. The only practical line in the United States, therefore, between the substantial and speculative movements resulting from production on credit, is the line indicated by a fixed ratio of metallic reserve. That this is the case, ascending prices, ascending and descending production, distribution and con-

sumption, and the ascending and descending ratio of banking reserve to bank debt and to bank loans, furnish practical proof.

M. J. B. Say proved very clearly the fallacy of Adam Smith's theory that labor is the measure of value, and the economists of the United States have followed him and furnished additional proof; but by still adhering to the theory of the intrinsic value of gold and silver coin as a commodity, they virtually admit Smith's theory, for upon no other foundation can the commodity theory of money be sustained. Gold coin buys wheat or iron because it has universal value, in exchange for all things, wheat and iron included. Its value is conventional, and lies only in what it exchanges for; and this is an average which can only be stated abstractly. It can only value as a unit, and purchasing power must be in proportion to the number of units employed. The only possible practical relation between gold and *all other things* is that of units alone, aside from any intrinsic qualities in the metal; and so of silver. The barter relations between gold and silver ought therefore to be what we actually find them to be, namely, such as arise from actual weights of each metal, thrown upon the market without regard to the intrinsic qualities of either. The greater relative abundance of silver has caused a much greater relative weight of it than the present ratios would indicate, to be manufactured; but the fact to be noted is, that the only barter relation between the two metals, heretofore of almost universal use as money in the commercial world, is by weights of respective masses: there is no other barter relation, because these metals are, and for ages have been, used as material for money, and there are vast accumulations of metallic money as well as commodity; because no other relation between them as money and *all other things*, is possible or conceivable, except that of units; and because such use and such relation render any other kind of barter rate but that of relative weight impossible. If the intrinsic qualities of gold and silver were always taken into account when they are used as money, they could never be used as such.

They would then be ordinary commodities, estimated by their intrinsic qualities as well as their respective quantities, when exchanged for other things; the intrinsic qualities, together with respective weights, would be considered, and the estimate of these relations would be made in *macoutes*, or abstract units having name but not locality, except in the two commodities exchanged. The metals would thus cease altogether to exist as money. That gold as well as silver, whether weighed out by miners, by merchants, or by governments, has no possible or conceivable relation to all other commodities but that of units — excluding its intrinsic qualities — is demonstrated by the barter rates between silver and gold as commodities in the commercial world's market in London. As silver for the market increases through production or demonetization, its barter rate with gold goes down and that of gold goes up, but this has no immediate effect upon its purchasing power when used as a unit of money. The impression of the commercial world — it might be said of nearly the whole world — is, that free monetization of silver by the United States will raise prices in the United States and *thereby* cheat creditors to the extent of the whole or a part of the present difference of barter rates between gold and silver, but this does not necessarily follow. If they cheat their creditors a little, they must first cheat themselves still more. The entire exclusion of gold by free coinage of silver at a rate not sufficient to make the bullion in a silver worth the bullion in a gold dollar, would create undoubtedly an arbitrary premium in favor of foreign bills to some extent, and a real difference as to bills not drawn against ordinary merchandise. Nothing can be further from the truth, however, than the idea that barter rates between the metals will settle the question, because it is impossible for monetization or demonetization to carry the metal now existing in the shape of silver coin immediately out of use, unless some substitute can be found; and what substitute is there but bank or government paper? How could Germany and the nations of the Latin Union immediately demonetize the silver *coin* they have now in actual circulation? It would

be impossible. They might redeem it by government or bank paper, payable in gold, within a short time, but they could not redeem it at once in gold. For this purpose time is required, and the needed supply of gold must come from production, aided by a diminishing ratio of the quantity of that metal, and an increasing ratio of that of silver going into manufacture, with an increased circulation of the immense mass of gold now existing in a coined state. The change in prices, if any there be, will not be noticed. Whatever the change may be, it must take place very slowly, and I have shown in a previous chapter that because gold and silver coin is but a series of units and the barter rate between gold and silver bullion dependent upon relative weights only, there are probably equal values of gold and silver, that is to say, one half of the total of each, in the state of *manufactured* commodity. Money is a science which might well be considered by itself: a treatise devoted to it exclusively might possibly have a good influence in turning the attention of the scientific world to what is really the foundation of all civilization. The subject of production and exchanges of commodities, as effected through money, is of so complex a character that such a work, devoted to the science of money alone, might have a better effect than one treating it in connection with other subjects.

The foundation of the science of money, as I have shown in Chapter I., lies in the fact that all money is but a series of units, and therefore purchasing power must be in proportion to the total number in existence and the amount put in circulation by loans or otherwise. This proposition is for all practical purposes as true as the proposition that the square of the hypotenuse of a right-angled triangle is equal to the sum of the squares of the two sides. All things are bartered for each other, when bartered at all, in pursuance of a valuation made in reference to intrinsic qualities and relative quantities, as estimated by the parties who barter, with the exception of gold and silver. These are estimated without any reference to their intrinsic qualities, and only with reference to relative numbers of coined units. All other metals

are valued in reference to intrinsic qualities as well as relative quantities. Copper and iron are valued in this manner. An increased production of copper or of iron tells immediately upon the price everywhere. The relative values of these metals are not determined as well by the relative quantities of each existing as coin and in a manufactured state as by the quantities thrown upon the market, while the prices of gold and silver are. Gold and silver are in demand, first of all, for the purpose of being used as money: this use controls all other uses, and consists in employing them as units of valuation, purchase, and payment, in producing and exchanging commodities. If the intrinsic qualities of gold were always estimated whenever two double eagles were exchanged for a ton of bar iron, two hundred pounds of copper, or five hundred yards of cotton cloth, as those of the iron, copper, and cloth are, then the exchange would be barter, and not a purchase of iron, copper, or cloth. But this is not the case: the money consists of forty units of valuing, purchasing, and paying power, precisely as if forty dollars in bank-notes or a check were used to make the purchases. No other relation between the money and the goods being either possible or conceivable, the barter relation between the metals out of which the units are made must necessarily be one of relative weight only; for if there were any other, it would appear in the relations of utility between the double eagles and the iron or cloth, and then the exchange of these would become in point of fact what writers upon money now erroneously call barter. The barter relation between the metals is, to an absolute certainty, one of relative weights only, and hence it is certain that the units of either metal must value in proportion to respective weights of the masses actually in the state of coin, ready and waiting to be used as coin, and actually used in that character.

It is utterly impossible, therefore, that any important rise should take place immediately in the purchasing power of gold, or fall in the purchasing power of silver, in consequence of the late demonetizations of silver in Europe, or the possibly total or partial remonetization of silver in the United

States. Neither gold nor silver can constitute a single standard, nor can the two metals together constitute a double standard in point of true science. All that can be said for a single standard is, that unless all nations will combine to allow silver to be coined freely, at some ratio approximating the *true* barter rate between the metals, there is a standard uncertainty whether any one nation can by coining alone hit the true barter rate in the world's market. Of this it must take the risk, if it acts alone, in addition to the inconvenience it would thus cause. Moreover, it is better for the United States to abstain from the coinage of silver until all nations learn the lesson that general recoinage is desirable, — and it may require some time to learn it. The departure of gold, if silver is overvalued, will leave an arbitrary rate of exchange not dependent upon actual values to be credited to outgoing merchandise, which the United States must pay if they buy bills; and they must allow every creditor, when they pay him silver, this difference in exchange, for they cannot afford to do otherwise. Nothing has so clearly proved the necessity of some attempt to put the science of money on true ground, as the opinions expressed, not in Congress only (for Congress cannot be expected to be in advance of the scientific, the banking, and the commercial world in this regard), but everywhere, in respect to the remonetization of silver. The United States have a perfect and sovereign right to remonetize silver, but they cannot afford to allow any creditor to suffer the loss of the one hundredth of one per cent. in consequence. They are bound to pay according to the equitable tenor of their bond which is a current security in the world's markets. The citizens who pay taxes can save nothing by paying in silver, while, on the whole, the nation will lose. The character of metallic money is such as I have shown it to be in a true scientific sense. Its office in banking reserve is one of limitation of loans, and thereby of prices, interest, and taxes. As often as money is paid out to purchase either the absolute or the relative necessities of life from A., he has the resulting conventional right to purchase for himself, when he

desires, or to lend, and there can be no blocking of the exchanges of the products of labor in consequence to any serious extent; but when it is lent beyond these limits, regulation of some kind is demanded. The mistake made by writers upon money is, not that credit is in some way the cause of banking crises, but in not having hitherto arrived at the knowledge of the fact, that what they call credit consists in the use of the conventional process of money, through banking, without the necessary limitations. The true nature of money once understood, statutes of usury would everywhere be repealed. Where the possession of money results from actual exchanges of commodities, the lender merely receives a stipulated rate of profit for giving up to the borrower the right to purchase commodities resulting from his having himself sold them, either actually or representatively, or labor of equal value; but when a bank loans at a rate fixed by law, the law in reality merely fixes the rate of profit which shall be paid by the borrower for the use of the purchasing power, which enables him to still further consume and produce on credit, and the premium which the bank shall charge for the risk of its own capital, standing as the guaranty of its depositors against immediate loss, — the capital, stock and overstock of the producer and the capital of the bank being the total security upon which the guaranty ultimately stands. In prosperous times the rate of profit; on the approach of a crisis, the risk of loss, is the chief element; but at all times the two together constitute bank interest. Why should this rate of profit, and this risk be fixed by law? It is the logical result of the old mercantile theory of money. If the new theory of money, which I have furnished in the foregoing pages, were adopted, not merely as a set of abstract propositions, but the true basis of all practical reforms in currency and loans, by scientists, bankers, merchants, statesmen and politicians, the result would prove to every practical man that the true office of a banking reserve is, by limiting loans, to limit the support and maintenance of producers, laborers, and adventurers, by the base line of the absolute necessa-

ries of life ; that the true object in continuing to use the precious metals in the future, as always in the past, is the resulting steadiness of loans and of prices, where they either furnish the whole circulation, or efficiently limit a paper one, — the latter of which they have never yet done perfectly, even under sound banks of issue without the functions of deposit and discount. It would then appear that the persistence of national habits, the large accumulations of both silver and gold in the shape of money and manufactured commodity, and the importance of mining for both these metals as a great and useful industry in respect to arts and manufactures, as well as steadiness in prices, furnish good reasons for the general remonetization of silver as soon as all nations are willing to unite for that purpose, fixing the barter rate between silver and gold as nearly as possible at the average which would appear if the barter rate were left to regulate itself without treaty and without legislation. Undoubtedly there would be a large amount of silver mining were the barter rate, for purposes of coinage, fixed at 20 and 1. Were gold and silver not in general use as money, this barter rate could not be fixed by legislation ; the barter rate, for instance, between copper and iron, were these metals bartered at all, could not be so fixed ; but short of the limit which would carry all the gold on the one hand or all the silver on the other, into arts and manufactures, because it would be worth most for that purpose, treaties and laws regulating universal coinage can be made. The natural average barter rate, as nearly as possible, ought to be adopted, because mining industry ought to be left to itself, in order to insure the fullest possible metallic supply for monetary purposes ; to make up for defective production of either metal by greater production of the other, and in order to maintain in the state of manufactured commodity one half in value of the total product of each metal, which I have shown to be the natural consequence of full and free production, and coinage at average barter rates of both metals. The present ratios of metallic distribution among the different nations of the commercial world ought not to be, and indeed cannot be,

suddenly disturbed. Should France gradually (and she can do it in no other way) adopt the banking system, metallic reserve in the United States and Great Britain ought to be gradually increased. Gold and silver being the money of the commercial world, all nations should act together upon all questions affecting the production and use of these metals. One of the logical results of my theory of money is the storage with governments of both metals, under proper regulations as to quantities deposited at any one time in the shape of bullion, to be circulated by means of certificates, for the convenience of bankers and merchants, in all the larger transactions of commerce. Gold and silver will continue to be used, nevertheless, actually as well as representatively, and must in every country form a part of the circulation, where there is an efficient metallic regulation of loans by banking reserve. If there is not such efficient limitation, the metal will remain in hoard as in 1856-7 in the United States. Paper will always circulate instead of metal where there is enough of it to answer all the actual needs of circulation: it ought, as Adam Smith has remarked, to come a little short of supplying those needs. To this remark I add, that it ought, on short averages, to form a definite portion of all the circulation, either actually or representatively, and such, from the facts stated by Smith, whose testimony ought to be admitted without question, must have been the case in Scotland in his time. Subject to the necessity of having a metallic circulation to this extent, the aim should be not only to retain all the conveniences of a paper circulation, but to extend them by checks, certificates, and clearings. The larger transactions of commerce can be carried on, so far as metal is actually called for, by government certificates founded on assayed and deposited bullion; the mercantile idea of intrinsic value represented to some extent by hoarding, ought, however, to be recognized by the actual presence of gold and silver as a substantial part of the circulation. It ought not, however, to be all allowed to remain in hoard as in 1856-7; it ought to be partially forced into circulation with the paper, by means of a regulated metallic reserve for both the paper

and deposits. Had there been such a reserve in 1856-7, and previously, the one hundred millions of gold, which were nearly all the time hoarded, would have been forced into circulation, as the result of the regulation of reserve; and there would have been no banking crisis; not because the gold circulated, but because the reserve was regulated.

Regulate deposits, and you regulate circulation; regulate circulation, and you regulate deposits. It is utterly impossible for any substantial difference to exist between the circulation of money, which causes the exchange of commodities and pays for labor where there are no banks whatever, and the money, which performs the same functions where there are banks. It is equally impossible, where there are banks, for one kind of money to be paid out of banking reserve to buy labor, daily bread, clothing, fuel, and other necessities, and for substantially another kind to be used by the aid of debit and credit, in bank and bank clearings, to make purchases at wholesale.

The supposition of any difference, if my theory of money be admitted to be true, involves an absurdity. A regulated reserve would also have a beneficial effect upon the purchases of the absolute necessities of life from the producer. Instead of buying up at one time all the wheat grown in any one season, paying interest upon the loans and speculating upon the price from day to day, it would be sent to and not withheld from market, for purposes of speculation. On long averages, the price of wheat is comparatively steady; on short averages, unsteady; and this unsteadiness is, in the United States, aggravated to the injury of the whole country by speculative purchases, made possible through bank loans. It is a mistake to suppose that the countries offering a market for surplus grain settle the price: sellers as well as buyers have the right to be heard, and both make bargains for the sale of wheat as of all other things. Quantities, of course, determine prices in the end, wants remaining the same; but as the crop of wheat is for the most part and upon the average annually consumed, the surplus of one year ought to supply the deficiency of another. With steady prices, a

large surplus could not be put upon the market at one time: there would not be money enough to be loaned to buy and hold it. It would, therefore, remain where it ought to be, — in first hands, — and not crowded upon the market, and prices maintained by the aid of bank loans. The whole country (in the United States) has suffered by wheat having been kept for a few months out of the foreign markets of consumers, through speculators who buy by the aid of bank loans. The market would be vastly steadier if less wheat were purchased and held on speculation, by the aid of such loans, and more of it brought, at an earlier period, into a foreign consumer's market. Low prices resulting from heavy crops would then produce their appropriate and desirable effects: they would keep a considerable portion where it ought to be, in first hands, until brought into the next season's market to make up for any deficiency. Prices would in this way be steadier than they are now. The regular dealers would then find uncertainty enough in prices, but on the whole they would do an altogether legitimate and regular, instead of a speculative, business. More real profit would also result to sound dealers, and thereby to the country at large, while merely speculative dealers would be forced into some other employment.

A still greater benefit would result to the country at large by the regulation of dealings in the market of stocks and securities. The natural tendencies to inequality in the distribution of wealth, while most desirable in themselves, because without them society would present one dead level of equality, and there could be no progress because there would be no accumulations of capital, are strong enough without the artificial stimulus of bank loans. Stock speculations, as we know them in the United States, would be impossible with a duly regulated banking reserve. Capital invested in railroads by the numerous stockholders who have toiled to accumulate the sums invested, has changed hands in vast sums, through speculations sustained by bank loans. Doubtless, some of the largest fortunes in the United States have been accumulated out of smaller fortunes lost in this

way ; and the morality of the time finds no fault. Indeed, it is estopped from fault-finding, because business of all kinds is, for the most part, conducted upon the same principle. Is not business to a great extent in the United States a lottery ? Can it be anything but a lottery when producers and adventurers of all kinds can, by the aid of bank loans, support themselves and their employees in producing at high prices so much merchandise, which must ultimately sell at low prices, or so many results which will not pay cost ? Great energy with want of harmony of production ; social disorganization through the scattering of the laborers who have caused the inharmonious production ; great poverty and great wealth in individuals, are at this time the grand facts which appear in the social condition of the people of the United States.

PRACTICAL REMARKS ADAPTED TO THE PRESENT CONDITION OF THE UNITED STATES.

The idea which lies at the root of what is called communism is, that the natural inequalities of condition in point of wealth ought to be rectified by the adoption of some system which will create and maintain a more equal distribution, and various plans to this effect have been suggested in the abstract. In France, the idea is the legitimate result of causes, which, though antedating the Revolution, have not yet ceased to operate. So far as the monetary system of France can have any influence, it is the best practical refutation possible of the idea ; for how could the production of France be materially increased ; and how could a more equitable distribution of capital be not only made, but maintained ? It would be impossible to sustain the labor of civilized communities without those accumulations of capital which naturally result from differences between those who produce. To this natural extent accumulations are indispensable, not only to society, but the maintenance of labor itself in the manner in which it is now maintained in civilized countries. Without these accumulations there would have been neither laborer, producer, or capitalist : all would have been savages. There are no political causes, however, for the existence of

the idea in the United States ; so far as it exists at all, we must look to social causes, and we find them in that excessive production on credit which has called so many laborers to the shop, the town and the city, and at last set many of them adrift, because they could be supported in that kind of production no longer. The frightful excesses of communism in the destruction of railroad property in the United States can be traced to no other cause.

In France, then, we may say that the idea has a political, in the United States, a social, foundation. Its existence in the latter country to the extent shown of late, was certainly a source of surprise to the civilized world. The nature of men must be essentially changed before the communistic idea can be carried out. Nevertheless, it has the semblance of support in the artificial augmentation of the natural inequalities before referred to, and in the very existence of the vast army of idle laborers who have been driven away from their old occupations, and have not yet found new ones. The idea has, of course, no foundation of truth or justice to stand on : its only support is a fallacy like many of those which have been unmasked in the preceding pages. Both labor and capital have been misled, and the laborers have no more fact on which to base their charges against capital than the partisans of an irredeemable paper currency, — who, not knowing what money really is, clamor for more irredeemable currency, — have against the government and banks. The true remedy of labor is a currency which will not make those inequalities of accumulation which are absolutely indispensable to civilization so great as to interfere with and even to menace, not merely the well-being of labor, but the maintenance, upon a solid foundation, of liberty and advancing civilization. Steady employment will cause the greatest possible amount of production within periods of twenty years each ; steady employment can only be secured by steady production, and steady production cannot exist without comparatively steady prices of the product. These are practical truths. If the theory of money sustained in this work is true, gold and silver, or one of these metals, is essential to

steadiness of production, and therefore to steadiness of prices, because it has been shown that the vast accumulations of both metals throughout the commercial world, and the constantly diminishing ratios of their annual production to their total mass, render it improbable that there will ever be any overproduction of them as compared with the increase of national and international commerce, even were the whole product coined, while the fact that the market will keep, at the present prevailing values in exchange for all other commodities, one third of the total of each in arts and manufactures, and the certainty that the mercantile idea of intrinsic value will persist, or give way very slowly, render overproduction in fact impossible: arts and manufactures will take all that the weakening of the mercantile idea can ever throw upon the market, while the demonstration I have so amply furnished, that all money must in point of science be taken out of the category of ordinary commodities, because in effect but a conventional system of exchange by localized units, explains why overproduction is impossible until the ratio of annual product to existing mass of the two metals increases very greatly beyond anything in the history of past metallic production. I have demonstrated what has been believed by the commercial world for ages, but never demonstrated before,—that metallic money is essential to steadiness of prices; first, as money in general circulation, and secondly, as a limitation of bank loans, both in banking reserve and in bank-note redemption reserve. Heretofore it has been called a basis. This word conveys no meaning to my mind, and I think it has no definite meaning whatever. The true office of a metallic reserve is one of limitation of loans. Adam Smith had no idea of consumption as balancing production, and thereby, as the only paramount and controlling force, maintaining the steadiness of circulation even of gold and silver themselves. He looked upon gold and silver money in the light of a commodity worth the labor which the mining of the metal cost, and that as commodities they would maintain a steadiness of their own, under all circumstances, as

the founders of the Bank of England supposed some seventy years afterwards. Nevertheless, the sagacity of this great man led him to perceive very clearly the necessity of maintaining within short periods an even average of reserve; or, as I have usually expressed it in the pages of this book, a definite ratio of metallic reserve to bank debt; but most of the modern authorities say or imply that a bank cannot and ought not to attempt to keep such a reserve. Now, the difference between the banks of issue in Smith's time and modern banks of deposit and discount, aside from note issues, lies only in the form of the debt. There is economy of metal by bank notes taking its place in the former, and by the use of a consolidated reserve through deposits, in the latter. I have demonstrated that a bank of deposit and discount deals only in deposits: it never deals in its own debt as does a bank of issue, because such a thing is impossible. It deals in no other form of bank debt but bank-notes. Were it otherwise, banking reserve could have no effect whatever in limiting, as it now does, the range of variation in prices, by putting *some* limit to bank loans. That limit is fixed absolutely by the condition that every bank must keep reserve enough, either in its own vaults or those of some other bank, to meet every call made upon it: if required to pay over its counter in coin or bank-notes, it must do so; if paying in the shape of a check or draft upon some other bank, the bank drawn upon must pay in like manner. As a rule banks keep more reserve than they need, and the excess having only an indefinite relation to loans, can furnish no definite limitation of them. It serves only as a kind of ballast to counteract the increased expansion of prices through the additional expansion of circulation which a smaller ratio of reserve would necessarily imply, because the banks would not be likely to sell their gold to bullion dealers or ship it out of the country to invest in merchandise or bills. Were they indeed in the habit of sending it abroad for this purpose and so investing it, using the same caution in respect to their loans at home as if the gold shipped were still in their vaults, prices at home would

be as steady or as unsteady — whichever one chooses to call them — in the one case as in the other, because the average of loans would be the same in each case. The range of variation in prices depending upon two elements only, — the total amount of money which *can be*, and the amount of circulation which is effected by that total, in order to supply consumers' markets, — the variation would necessarily be the same in each case, because there is no difference in loans at home. Had the metal shipped remained all the time in the reserve, it would have paid no debts and bought no merchandise, nor would it have purchased labor and thereby have enabled the seller of that labor — the laborer — to carry the range of all prices still further upward by putting more money into his hand, and thus increasing the quantity of money paid out, while the quantity of things actually bought and consumed remained the same, or at least did not increase in proportion.

Banking in the United States, then, as well as in England, has but one direct relation existing between its reserve and its debt, and that is, the necessity of meeting every call upon that reserve. This seems to be a very slight check to expansion: there must be some other, or what is called convertibility is little less than a sham. What can that other check be? It is the check furnished by the necessity of redeeming bank-notes in coin, in the United States; and in England, by the fact that outstanding circulation has its limits in the coin of the realm. These checks are insufficient, but without them convertibility of bank debt by book would be but a name. The depreciation of bank-notes, issued without reference to actual exchanges in the United States is to some extent counteracted by redemptions in coin to supply the deposit fund of country banks at commercial centres. Adam Smith is referred to by some writers as authority to prove that there can be no undue expansion of prices through the issue of convertible bank-notes under any circumstances. I now bring him forward after the lapse of more than one hundred years since his "Wealth of Nations" was published (1776), as a witness to disprove not only this, but also the

popular fallacy that excessive issues of convertible bank-notes, aside from deposit loans, cause any such expansion of circulation and of prices as we witness in our time, although it must be confessed they cannot furnish as steady circulation, and, therefore, prices, as metallic money distributed through national and international commerce, but not banked: they approximate, under careful management, but they do not reach that condition. Smith gives no reasons, but he gives facts. His facts show that a bank of issue, considered independently of deposit loans, must stand or fall by itself; if it falls it will not fall because all other banks fall, but because under such banking every bank has to stand by its own strength or fall by its own weakness. Smith says, on page 232, fourth London edition, by Alexander Murray, that the test of sound banking in his time was the repayment of loans by customers within short periods of four, five, six, or eight months. This, he says, without any further care or attention, kept the bank coffers replenished, because the stream running into them was equal to that going out; but where the outward stream was the largest, in consequence of repayments falling short of loans, it "required some great and continual effort of expense," to prevent those coffers from being exhausted altogether. The cause of this difference Smith does not in terms state, but his testimony to the fact is clear and explicit. The true reason I have repeatedly given in the course of this work.

In the first case, when the reserve was maintained at an average, all the additional production which the loans caused to take place was within short periods balanced by sales to consumers; in the second, when it was not so maintained, the production was of such a character that cash buyers could not be found fast enough to keep the return current into the reserve equal in volume to the outgoing current, either because the merchandise produced was in excess of consumers' markets, or because the product, if not merchandise, had not yet become productive, and could therefore find no cash buyer. That there was some banking of this kind in Smith's time is certain, and therefore it cannot

be said with truth that an excess of bank-notes is impossible, even without deposit loans, but it may be said with entire truth that such excess is slight, compared with the excess of our time under deposit loans, because under the system of loans of bank-notes, in Smith's time, the excess was confined to a few banks, and soon ruined them without affecting the ability of the others to redeem; but in our time, under deposit loans, all banks stand until a general banking crisis compels all to suspend. While the cause was entirely local and confined to a few banks in Smith's time, in ours it is national, and not only national but international. No just distinction can be made between the two kinds of banking, nevertheless, in respect to maintaining a proper relation between loans and reserve in all banks. There is no difference in the purposes which loans subserve, whether made by a bank which makes only deposit loans, or a bank which only issues notes. The rigorously exact difference is, that in order to make the loans of a deposit-loan bank harmonize with the total circulation possible without such banks, at some point or other, loans must stop after a certain amount of all money belonging to depositors has been lent: this leaves a definite amount of reserve: with the bank of issue the reserve must always bear a nearly even ratio of metal to outstanding notes, agreeably to Smith's law. The bank of issue deals in its own debt as well as in the metal of its reserve; the deposit loan bank deals in the same kind of money which existed before such a bank was known: it deals in both metallic and paper money, and in nothing else, because it only becomes bankrupt for want of either of these in order to meet calls. If it be true that the deposit-loan bank has introduced a new kind of debt in which it deals, that debt takes the place of the bank-note *pro tanto*, and goes into the equation of exchange by the instrumentality of checks, being placed there by buyers, and not by banks. The latter only register the changes of ownership. Production on credit is the result of accumulated capital, and without it civilization would be impossible: the danger lies in carrying it to excess. Bank loans are, to the extent of their volume, an in-

crease of the production on credit which would be possible without them. In the absence of all banks, the production taking place by means of ordinary loans from capitalists would be on credit, undoubtedly, because the capital would be borrowed ; but banks have in deposits, no capital to lend, because their loans are in excess of those which depositors themselves make. The loans made out of all money capital, other than that of depositors, must first be taken into consideration, and then, all loans by banks over and above these, and called bank loans, are so much in addition ; and under bank management in our time, they know no limit but a banking crisis. It is doubtful whether any other limit is practicable, and it is certain that the only other limit is a ratio of reserve to loans varying at short intervals. That production on credit is the source of bank debt or deposits over and above reserve, is true beyond reasonable doubt. There could be no production on credit were it not for loans ; loans are its only source and origin. Bank loans, therefore, must add by their exact total to the production on credit which would take place without them. Production of commodities is the origin of deposits, and not the sale of commodities. Bank expansion is the register of overproduction on bank books, as "overtrading" is registered on merchants' books. As loans are made from time to time, and bank-notes or coin paid to labor, the notes or coin are to a great extent redeposited, leaving the reserve nearly of the same volume as it was before the loans were made, while re-deposit increases bank debt by its total over and above what it was before, and therefore deposits. Meantime, sales of merchandise by producers, who borrow from banks, to merchants, who also borrow from banks, pay the debt of the former, and substitute in its place an equal amount, with profits and charges added. The latter thus increase bank debt, or, in other words, deposits. Bank expansion is, therefore, composed mostly of two elements : wages and profits : even charges are largely made up out of wages. When production on credit, and, therefore, bank expansion, have reached their limits, they are largely in advance of outstand-

ing circulation. While that has increased, they have increased much more. Thus, while circulation in the United States increased during the three years between 1854 and 1857 only ten millions, deposits increased forty-two millions. The same law has prevailed in England as well since as before the bank act of 1844. In February, 1824, deposits had increased in the Bank of England within a few months more than two millions; but, in August, 1825, they had fallen nearly four millions within five months. In February, 1836, deposits had increased nearly three and a half millions within one year, and in February, 1838, they had fallen nearly six millions. In 1846, after the "circulation" was either metallic or limited by metal, pound for pound, with an unimportant exception, private deposits increased about nine and a half millions, and in 1847 they had fallen nearly twelve millions. Expansion was thus relatively greater with a metallic than it ever had been with a simply convertible currency. The lesson taught is the same on each side of the Atlantic,—that bank expansion is everywhere one and the same thing. It is not the power, not the active cause, which brings on a banking crisis; it is the banking side of production on credit, as shown by bank books, while mercantile and manufacturers' books show the other side. All the banks, and the merchants and manufacturers who borrow of them, are partners: each of these keeps only one side of the accounts. In all these cases the rapid bank expansion was the result of the rapid accumulation of stocks on hand which had become overstock, and the impossibility of realizing on those which had been sold outside of a cash market.

The equally rapid contraction was the result of forced sales after the banking and commercial crisis,—the natural and necessary result of overproduction,—had been inaugurated. The parallel between bank suspension in the two countries is also, in point of science, complete. "Suspension of specie payments" takes place in the United States, and quiet is at once restored, because it is known that the banks can then accommodate those who are carrying overstock and want to be saved from bankruptcy: suspension of the bank act of 1844 has a like effect in England.

The "purchasing power" of money then rises, as it has risen since 1873 in the United States, without reference to any supposed or imaginary contraction of "legal tenders" and bank-notes. The real contraction is always and everywhere the same: it is not the contraction of money, but of production, of distribution and consumption, of wages and profits. When these contract, they necessarily contract that circulation or use of money, the expansion of which (circulation, not money) had previously *resulted from*, but had never caused the expansion of production to take place. While resulting from the expansion of production, it had at the same time concealed its real effects by an apparent rise of prices when there was a real fall of values. The merchant who sold, as well as the one who bought, on a rising market, appeared to be making money, and really made it as long as he could find a buyer of the overstock, who could borrow from a bank and pay him a profit, besides taking his place as a debtor to the same or some other bank. No matter how much prices might rise, as long as manufacturers and merchants could sell and pay their debts in bank. On the other hand, as the receivers of profits (aside from this facility of paying debts) they lost, as well as the receivers of wages. The nominal rise of these could hardly balance the real fall. Production on credit carried to this excess cannot be a blessing; it is surely a curse. Could it be properly regulated, it would, on the other hand, be the surest means of advancing all the nations of the great "Anglo-Saxon" family. The immediate prospect in this direction, it must be confessed, however, is poor. Another generation of writers and bankers will probably learn the true science of the subject, complex as it undoubtedly is.

The same ideas which made the English statesmen who framed the act of 1844 suppose that they had established a sound monetary system because they had limited bank-note circulation by metal, that a bank loan is something essentially different from any other loan, and that the sum of ten pounds in the shape of merely convertible or even inconvertible bank-notes is something *essentially* different from the

same sum in gold sovereigns, will, for a time, prevail, and conceal from the understanding the true nature of money, and render it impossible to make the scientific and banking world see, with all the force of demonstration, why gold and silver furnish the only money possible or conceivable by which, at this time and for a long time in the future, harmony of production can be maintained. It has been well said, that in ordinary minds, associations of ideas, if firmly established, become indissoluble; and the power of separating them, and of arranging them in new combinations, is one of the rarest of endowments. These remarks are preëminently true in reference to economical and monetary questions, which all men are required to face continually. If they were capable of escaping from the slavery of associations implied in the expressions — Bank-notes have no value because they are mere credits; Gold and silver coin are commodities and have mercantile value as such in the metal they contain while still money, and hence they are an end in themselves, as well as means to an end, they would soon learn the real facts. Until men are able to master these fallacies in sufficient numbers to modify opinion, there will be no possibility of regulating bank reserve. The practical evidence of the superiority of gold and silver as money, however, is so strong that the merits of a monetary system like that of France is at once perceived. Without banks, a circulation of seven hundred millions of coin, and two or three hundred millions of treasury notes, could be maintained; but it would be impossible to establish it now, and if it were not, labor would suffer greatly before it could be accomplished. If there were really such a thing as sound monetary science, how could the Congress of the United States be debating the question of issuing silver at this time and paying their creditors with it? To coin silver at the ratio of 15½ instead of 16 to 1, as rapidly as possible, and gradually retire the present surplus of two hundred millions of legal tenders, commonly called greenbacks, with silver, while still requiring all customs duties to be paid in gold; still paying the interest upon the public debt in gold, but no

part of the principal until after the establishment of "specie payments," would be unobjectionable, although premature. Specie payments inaugurated, the silver coined at 15½ would immediately be on a par with and exchangeable for gold, as in France. But to coin silver even at a lower ratio to gold, by one half pound for every fifteen and a half pounds, and force creditors to receive it even at this rate, — lower as it is by three per cent. than the French rate, — and compel creditors to take it instead of gold, is repudiation, of which the United States has never yet been guilty. To do this is precisely the same thing in substance as to make their interest and principal payable in their own paper money. For all practical purposes it is the same thing, except that they can, by further paper issues, depreciate the paper still more, while the coinage of silver will tend to raise its value as bullion. To make all paper money convertible as soon as possible, is the true policy. "Business would revive" immediately afterwards, and another crisis come as it came in England in 1825. We must continue to have commercial crises until we are able to avert or essentially modify them by learning the true nature of money, the danger of overproduction, and the advantages possessed by gold and silver over all other forms of money.

The only *sound* argument in favor of coining silver at 15½ and retiring government paper with it as rapidly as possible is, that it would be a ready method of retiring a considerable portion of government paper, which is a necessary step towards convertibility. In other respects it would be premature.

CHAPTER XXXI.

THE PRESENT INDUSTRIAL CONDITION OF THE UNITED STATES: PLENTY AND SCARCITY: CAPITAL AND COMMUNISM.

THIS subject is one of the gravest which can be presented to the consideration of thinking men. That large numbers of native as well as foreign-born laborers are unemployed is true. That they would not take employment if offered them is probably true of some, possibly many of them; but, if so, the disinclination to labor must have arisen from the possibility of getting along without it, which has been gradually and practically demonstrated to them by the fact that they have succeeded so long in living upon the community at large.

The fact, however, remains, that they labored more or less, when employment was to be had freely; but now, when there is comparatively little, they do not seek, and may sometimes refuse it. Such a state of things, leading, as it has led, to an emigration of skilled laborers to a foreign country, demonstrates to a certainty, that by some cause or other, not a comparatively small number, as prior to 1857, but a comparatively large number, have been called by some powerfully exciting cause to the production of those things or results, — whichever one chooses to call them, — which relate solely to civilization and "progress," and not to the labor which, by the sweat of the brow, produces the absolute necessities of life. It is no answer to say that crops have been abundant, and largely exported. It is immaterial where the labor is located which consumes the absolute necessities of life, while it does not produce them, whether it is at home or beyond seas. The commercial world is but

one country, so far as exchanges between producers are concerned. Tariffs are taxes imposed on the commodities of certain producers, to furnish government revenue. They are not intended to operate as bounties forever to home producers, because that would defeat the very object of protection, but ultimately to enable the home producer to command the field as to the commodity protected, independently of all aid. Until this end is achieved, the object aimed at in collecting a part of the necessary revenue by taxing one commodity which may be, rather than another, which cannot be, produced at home, is not fully accomplished. The limits within which such a purpose can be made effective are narrow enough, because the artificial advantage created for the producer is to a considerable degree counteracted by the loss of power to buy, on the part of the producing consumer. In order to give the protected producer any substantial benefit, it is absolutely essential to give him at the same time with the protection of a tax on the foreign article, the first condition of protection in a currency of steady and uniform purchasing power. This the American producer and the American laborer have never had; not from any fault of their own, or anybody else, but because the complex nature of money and its exchanges has not been understood.

With steady prices it would be reasonable to expect that a considerable portion of the exports now leaving in the shape of grain, provisions, and cotton which has cost grain and provisions, would remain at home to feed and clothe laborers while producing more of the same kind of goods, which are now imported. But it is said that we have an abundance, and, indeed, a surplus of everything, including even the absolute necessities of life, the evidence of which is the fact that we export so large a quantity. The fallacy in this, as in many other matters relating to the science of production and exchange, lies in the want of a careful examination of all the facts, which in this case give us a very complex matter for examination, instead of the simple one of the export. The exchange between the domestic

grower of wheat in the United States and the foreign manufacturer of iron or cloth, through the intermediaries of commerce, and by virtue of a sale to buyers in the United States with domestic money in the shape of dollars, and re-sales in England for British currency in pounds by the instrumentality of bills of exchange, takes place like all other exchanges. The buyers seek the markets where they can get such goods as they want, and at the lowest rates. If they seek goods of particular qualities in fineness, durability of colors, etc., and cannot find them at home, they must, in order to supply the market, go abroad. In view of the present state of development of manufacturing industry, there is really no question about protection which needs to be discussed by any practical man. It seems probable that with a currency of approximately equal possibilities in point of steadiness with that of France, and with steady producers to use it, the United States would be able to furnish themselves, and, to a considerable extent, foreign markets, with articles now largely imported. But all this is in the future. The question which I have not yet answered fully is, whether we have not, in an economical point of view, a surplus of the absolute necessities of life, because we export a large surplus. The answer to this question will be furnished by the answer to the question, whether, after all exchanges are made between producing consumers at home and abroad, growing out of all the production of the United States and all production abroad, a surplus of any kind is left, and if a surplus of any kind, where. There certainly is no surplus of absolute necessities in the shape of grain and provisions in the United States after these exchanges are made. There has been, however, a large surplus of cloth and of iron, after all the sales the producers of them could make, although these indispensable articles are being reduced in stock. The same is true of many other articles and of houses and warehouses, lumber and other building materials, railroads, and municipal improvements proportioned to these. Here, then, is where the surplus lies in an economical point of view; and before there can be rectifica-

tion of the exchanges, this surplus must be reduced. But before a surplus can be reduced to equilibrium, supply in another quarter must increase. Depletion must occur on one side half way and repletion half way on the other. This will enable all producers to support themselves; and the sum of national is the sum of all individual prosperity. There are, therefore, but two remedies possible in the very nature of things; first, more of the surplus now going abroad must be used to feed and support the existing body of American laborers in supplying by their labor at home the imported articles which can be produced at home, or secondly, by sending a large body of American laborers to buy or rent farms, and thus depleting surplus in the kind of necessities they have been producing, and repleting where there has been hitherto defect. But neither of these alternatives will be sufficient of itself. Both must come into operation to solve the problem for American labor, whose skilled workmen know none more skilled than themselves. These co-factors will in due time produce their proper and natural effect, if not impeded by an expanding and contracting circulation of money; I say circulation of money, instead of money itself, because contraction of money is a mere phantom of the imagination. A cause is known in its effects. The effect of money used is the exchange of things produced. Money is, therefore, but a process of exchanging commodities or services. There has always been abundant expansion of money in the sense of expansion of the circulation of money, when production was expanding, and there has always been abundant contraction of money, in the sense of contraction of the circulation of money, when production was contracting. The prices of manufactured commodities in the shape of cloth, of iron, of lumber, and of property in the shape of houses, etc., have been much contracted within a few years past, although units of money are as abundant as ever, and will be as efficient as ever, when the actors in the grand drama of production can, through the restoration of equilibrium in the exchanges, use them again. The real contraction lies in production, distribution and circulation. To

cancel three hundred millions of treasury and bank-notes would produce no more contraction in prices than we have now : if it could, it would be unfortunate indeed, for prices of the sort named have surely been contracted enough already. Instead of contracting any more, they must and will rise and continue to rise after convertibility has been reached. The real object to be gained by the contraction of the present volume of paper currency is not contraction of present prices, but the retirement of a sufficient quantity of the paper to make convertibility, when attempted, a success ; and such a contraction, to be certainly successful, ought to be gradual. Under our present system of banking, the range of variation in prices, through variation in production, will be less with convertible notes than they could be with the present volume of notes. That is the material difference. The real contraction which is now going on in the United States is of a kind which comes at no man's bidding, and ends at no man's command. It is the necessary and unavoidable reaction which sets in to restore equilibrium between the production and exchange of commodities. The only apparent contraction, on the other hand, which is taking place, even to the eyes of the scientific observer, is in the quantity of circulation. Both these contractions are now going on in the United States, and have been going on for some time, and to the ordinary observer it seems to be a contraction in money itself. The real contraction, looked upon in the most perfect and general sense possible, is a contraction of the amount of labor applied within short averages to the manufacture of such things as iron and cloth ; a still greater contraction in the amount of labor applied to the production of building materials, houses and warehouses ; a still greater in that applied to the making of municipal improvements, and greatest of all to that which is applied to personal uses, without definite and tangible results, and to purposes of speculation only, without creating any actual value. The tremendous banking, commercial, industrial and speculative crisis of 1873, has made a familiar household word what was before a word of only occasional

use. The light brigade of *tramps* has left altogether the grand army of labor, to which, before 1873, they had comparatively slight attachment, and is now living on spoils. It would be a great mistake to suppose that these men have never labored and have always lived as they are now living. They have banded together for mutual protection, by a kind of necessity. Society is at war with them in order to maintain itself, and they have banded together in self-defence. That they might nearly all find employment, if they would disband and seek it, is probable, but the want of employment, or at least the great difficulty of finding it, has set them adrift. They were, certainly, — a large portion of them, — in the country before 1873, for nothing has occurred since to attract them here from abroad, and they have not come up out of the sea, nor from across the border. What were they doing before 1873? They must either have been employed at some occupation, however light, supported by public contributions in public institutions, or by private charity in the cities and large towns from which they have emigrated, and are now roaming at large. In the absence of all official or reliable information of any kind, it is almost certain that they were once located for the most part in cities and large towns; many of them were occupied at some employment or other, and, so far as they were skilled laborers, were possessed of less skill and force than others, and therefore emigrated, and have succeeded in obtaining a precarious existence without labor. They think that society has wronged them, and have no conception of the real and ultimate truth in the case, — that neither society at large nor capitalists in particular, have wronged them: that their real misfortune lies in the existence of those conditions for which society and capitalists are no more to blame than they are. They are ignorant of the truth that without those inequalities, which make surplus capital possible, and which in fact consist merely of surplus capital here and there, civilized society could not exist, and skilled workmen would be barbarians; that the fault lies not in the fact of surplus capital, but in the vast and unlimited possibilities of "credit," in the shape not of an

extra amount of money, but of an extra circulation of money. The popular knowledge of the exact nature of this credit is embodied in the common remark, even of writers, that such disturbances arise from "a highly artificial state of credit." The knowledge which this expression implies, leads to no solution of the vast problem. That a nation so young as the United States should have within the short period of twelve years developed such an industrial condition as now appears, is the most wonderful of all social facts. It is a condition which gives something more than a warning: it gives absolute demonstration of the immediate necessity of change. It demonstrates the existence of unsurpassed energy and force, —like Polyphemus in the fable, strong, but blind,—and not only the existence of these, but the danger of them when misdirected. It demonstrates the necessity of balancing productive forces by a proper distribution; that what is needed now is a new science of production and of the exchanges of commerce as affected by money, founded on facts, to take the place of old abstract theories which are only remotely and subjectively true. Of all the countries in the world, the United States stand most in need of such a balance. If France and the United States could change places as to their monetary systems and as to nothing else, France would not follow exactly the previous example of the United States, nor the latter that of France. Manners, habits, modes of thought, and previous modes of action, would modify the actions of each. Money is but means to an end: the United States would carry the old energy into the use of the new monetary system, and France would carry the old conservatism. But the new monetary system of the United States would force upon them the making of a balance at short periods, while the new monetary system of France would postpone the balance to a crisis of some kind, although results would be highly modified by the character and habits of each country.

Suppose the United States to have inaugurated convertibility of government and bank debt to-day. Suppose to-morrow, by authority of law and consent of all bankers, depositors are paid off by bankers to the extent of all the registered or

inscribed debt they owe them, by issues of bank-notes, — bankers retaining the metallic reserve to redeem the notes with. Bankers now redeem the notes that are presented out of a reserve which must be in harmony with outstanding circulation, and the only kind of loan possible is a loan in bank-notes. They cannot keep out many more notes than will circulate in even ratio with their metallic reserves. Loans of notes to merchants and other producers are now for the most part only used by producers and laborers themselves, and those to whom they pay them out in the ordinary commercial exchanges before they are redeemed, while in deposit and discount banks, the same notes can not only be loaned for this purpose once, but through deposit and re-deposit, before being redeemed at all, supply a continual stream of outgoing supplied by incoming notes, sufficient to pile up a large additional amount of production, until checked by a crisis.

Now that depositors have by supposition been paid off in bank-notes, and the banks converted into banks of issue, depositors have, as a whole, the same amount of money, loan as much of it, and produce the same effect on prices, as before, so far as real commercial exchanges go, and the borrowers from deposit-loan banks, who gave the banks their bills and notes in exchange for money out of the incoming stream of deposits, before the conversion took place, must continue gradually to pay up, precisely as they were doing before. They will pay up as fast as they sell the goods whose production was the result of their bank loans out of the incoming stream of deposits. This it is certain they will do, and they can do no more. But who will be the buyers? The buyers will either be cash buyers who have cash of their own received by them as sellers in the markets of producing consumers, who have exchanged merchandise, or buyers who borrow the money from the new banks of issue. But these banks can no longer loan money out of the incoming stream of deposits, because there is no longer such a stream. All they can do is to lend bank-notes as fast as the maintenance of an even average of reserve will

allow, like the Scotch banks in Adam Smith's time, with the exception of the unfortunate Bank of Ayr, which, disregarding the notice of a failing reserve, became bankrupt. This self-regulating limitation of loans in the shape of notes, by the state of the reserve, will prevent any possibility of long maintaining the old volume of bank loans. They will fall away as fast as a producing consumer's market of the kind I have named takes away the goods which the volume of bank loans brought into existence, by enabling so much production on credit in advance of producing consumers' markets, to take place. What maintained the volume of bank loans in existence, before the conversion, was the rise in prices caused by the increasing volume of production on credit. The registered or inscribed bank credits in favor of depositors have become, through the metamorphosis of banks of deposit and discount into banks of issue, bank-notes in actual possession, and have not vanished, because they are a part of the currency required by the country. Deposits with the reserve behind them, belonged, in point of sound economical science, to depositors, because they were actually so much money, except as I have explained in previous chapters, received in exchange for commodities in producing consumers' markets: the money in the reserve, through the unlimited circulation which could be given it out of the incoming stream, made all the deposits of this character the precise equivalent of an equal amount in bank-notes with the aid of the metallic banking, now converted into a metallic bank-note redemption reserve, behind them, with, however, a vastly important difference in results. That difference I have already described with such precision that it can be clearly understood. I attempted to explain it in an essay on bank-note circulation and central redemption in the spring of 1873, but the subject was too complex for me clearly to understand it myself without further examination, and hence I could not offer a satisfactory demonstration to my readers. I endeavored to point out what I have just now pointed out, — the vast expansion of circulation which can be produced through banks of discount and deposit and

through them alone, but I failed in giving a perfect demonstration, because I had not then discovered that the volume of bank loans is sustained by an equal volume of production. I endeavored to show that the range of expansion must be in proportion to the total volume of money in circulation, but failed, because I had not carried my analysis of the nature of money far enough. Now, if all the banks of deposit and discount in the United States—the grand source and origin of our gigantic system of production on credit—were, upon the restoration of metallic payments, converted into well regulated banks of issue, and deposit and discount banking abandoned, sound banking could alone exist, and we should have an approximation to the French monetary system.¹ If deposit and discount banking continues, the only mode of regulating it is in approximating as nearly as possible to the French system by artificially regulating what, in the Scotch bank system of Adam Smith's time, naturally regulated itself, through the reserve. The reserve is that money which comes into banks of deposit and discount from actual exchanges of commodities: the remainder of deposits is that which comes from the production of them. It is not convertible bank-notes which lead to production on credit and a state of things called a commercial crisis, but deposit loans; for, suppose now our banks of issue into which, by supposition, there has been a metamorphosis of banks of discount and deposit, to be changed back again into banks of dis-

¹ The conversion of all deposit and discount banks into well-regulated banks of issue would produce the same effect ultimately, as if, instead of loaning out of their reserve as they did under deposit and discount banking, the same banks had made loans of their own notes to the borrowers, and they had paid them out to the depositors who now, by supposition, hold them. Henceforth the borrowers could not pay by selling to other borrowers out of bank, unless the latter borrowed to supply a producing consumer's market of the kind before mentioned, and but very little interest and very small amounts in profits could be paid over, unless realized out of such markets. The like may be said of wages. The maintenance of a fixed ratio of metallic reserve to loans, if that be possible, would, under our present banking system, produce approximately the same effect, by gradually converting new loans into loans of the former kind. The introduction of banks of issue into Scotland stimulated production very greatly for a time, but only moderately after the notes had taken the place of so much metal.

count and deposit. We should see the same volume of loans restored again, and with it a full, perfect, and complete demonstration of the fact, that what banks loan is depositors' money, and not their own: if they loan without any fixed limit, they will cause production, so far as their loans can aid it, to go on without any limit but a crisis: could they all agree upon and keep, or all be compelled to keep, the same ratio of reserve to loans, the effect would be that they would all stop loaning the money of depositors at precisely the same point, and thereby prevent any further production from taking place after that point had been reached in the progress of production on credit by the aid of bank loans, unless, and only as producing consumers' markets could take the product. It may be, and probably is, impossible, at present, to compel banks to keep the same ratio of reserve to liabilities, but a demonstration of its necessity is in order, and I have given it in a variety of forms. One form may convince one, while another form may convince another reader.

Whether anybody is convinced or not, all must admit that American labor is at present in a bad case, and needs a remedy commensurate with the cause of the disease. The immediate cause which everybody, when reasoned with, must perceive, is, that an excess of labor in some parts of the great field of production has developed itself, and that the remedy lies in sending the excess to other parts of the field. It follows that the best remedy of all would have been one of prevention, by not allowing the excess to exist. That prevention can by no possibility be anything else than making it impossible to support excess anywhere for a long period of time.

Now, this excess can only be sustained by borrowing, to pay and support labor, and the borrowing must take place by loans of money: the money must be loaned, mostly, in the shape of bank-notes, because this is the kind of money in use. Bank reserve is, through the increasing current of deposits, the grand magazine whence the supply of money in the shape of notes is obtained, and sometimes money in the

reserve, handled by the instrumentality of checks. There is no other plan by which the system can be sustained, for it is not a mere exchange of credits, without any results produced by labor.

A mere exchange of credits would be a childish process : the real force in operation is production on credit, for no result could be produced by a mere speculative exchange of credits. There is something real in the case, in point of results, and it is a want of harmony in the exchanges of both goods and money, from want of balance in the production of the goods. The ultimate regulator above which no production can proceed beyond certain limits is the Agricultural Base Line of Absolute Necessaries, which I have described in the diagram of Chapter II., as immovable, while the other line of production moves within certain limits above and below it. The effective remedy must be one which, as far as possible, prevents the evil from arising at all, and it lies in stopping the supplies coming by what may be called the payment to money of much more than it stands credited with in commodities through the regular exchanges, after a certain stage of production is reached.

If Say's abstract law, repeated by most writers in England and the United States, were practically true, the industry of the United States would not be in its present predicament. A paper currency issued in the usual course by banks, inscribed bank credits without any metallic banking reserve, and even the paper of sound merchants in convenient sums, would answer all purposes, and would furnish steady prices, because there would be cash markets for all products, and the amount of money put in circulation by the issuers, would, within short periods, be taken out of circulation by payment to the issuers. It is because Say's law is practically false, that a metallic currency, or a paper or credit currency limited by a metallic one, and moving with it freely in exchange for commodities to be consumed, or for labor only to supply commodities as fast as they are consumed, is absolutely necessary in order to preserve steady prices. The expansion of circulation is paying out or lend-

ing money, and contraction is paying it back again. A contraction always approximating expansion, and at short intervals equaling it, would be the necessary result of such a harmony of production, even with a properly regulated inconvertible currency. Because there is no such harmony and because production of certain kinds has been and is, not necessarily and unavoidably, but accidentally, increased, through the increase having for a time the appearance of profit, and because the owners could keep it by the aid of bank loans, we have had commercial crises. I lay down the following proposition, as embodying the only practical remedy for the industry of the United States: *Production on credit can only be checked by the use of a currency which will limit it short of a commercial crisis; and this limitation may come, first of all, by an exclusively metallic currency, without any banks; secondly, by such a currency, without banks of deposit-loan, supplemented by a fixed amount of bank or government paper, not exceeding half the whole circulation, and kept steadily at that volume; thirdly, by well regulated specie paying banks of issue without the functions of deposit and discount, or fourthly, by deposit and discount banks either with or without the function of issuing notes, but regulated by being required to keep, and by actually keeping, a fixed ratio of metallic reserve to liabilities.*

The false and misleading theory of money as an active cause in itself leads to the popular idea that in times of depression of production and industry money is scarce and everything else is abundant. Nothing can be further from the truth, and yet it is the sole foundation for the popular demand for the "remonetization" of silver and the issue of more paper by the general government, instead of the retirement of the outstanding surplus of paper, preparatory to convertibility of the remainder. Doubtless the productive powers of the United States are great, and there is product enough to maintain the whole population. But the exchanges are at fault; and these are at fault, because there is a want of harmony in industrial pursuits. Money out of circulation is not scarce: it is impossible to use it

as freely as heretofore in production of certain kinds, because the product already on hand is an overstock. There is no overstock of wheat, however, and there would be none, if three fourths of all the skilled and unskilled labor in the United States were settled on land. Looked at in the light of truth, a scarcity of money, aside from its use, is impossible. It is production that has fallen short, because there was a want of harmony in the several parts. Money in circulation must continue to be scarce until production ceases to fall short of consumption. When this occurs, not money but the circulation of money, will be abundant. To talk of the scarcity of money is as contrary to right reason as to say that an engine regulates its balance wheel, instead of saying that the balance wheel regulates the engine.

CAPITAL AND COMMUNISM.

Communism, as the term is now understood, can not properly be called a theory : it is a mischievous idea, and, when developed into action, destructive. It has been developed practically, in the United States, out of the enormous stimulus applied to production, through the natural reaction from the depression of the civil war, leading to a long continued expansion of circulation and prices, increased by the enormous issues of government and bank paper and bank loans. Communism, as now understood, could never have prevailed to such an extent in a country like the United States, with such opportunities for the purchase of cheap land, if labor to an enormous amount had not been artificially attracted to places where it ought not to go. The ingenious but impracticable communism of Fourier and his disciples is a very different thing from that of the Communists of to-day.

Can anything be more absurd to a practical man who, without spending much time in reflection, has used his eyes to some advantage, than the monstrous fallacy that the possession of capital to lend, is proof that the owner of it is a robber, and ought to be compelled by taxation, or some other method, to distribute it? This is the extreme communistic idea, avowed to a greater or less extent by those who sup-

port it. It is natural that the few who maintain it should ally themselves to those who think that bankers, manufacturers and merchants, constituting together, aside from the producers of absolute necessities, the producing and mercantile classes, are the cause of the present sufferings of labor, and that plenty of money, instead of the present scarcity of money, is needed to make "good times."

What sound argument has the economic science of the day as heretofore taught, to say in opposition either to those who maintain the communistic idea and boldly avow it, or to others who maintain it in part by asserting that capitalists and banks are blamable for not lending more money, and finding work for idle hands? Is not the science of the day really committed by its own doctrines, to affirm that those who thus find fault are right. Does not the doctrine of our economists condemn by necessary implication capitalists and bankers as the cause of all the trouble? If overproduction is impossible, there is no difficulty in selling all the products of labor; and it is a crime not to employ those who want to labor and cannot. Again, does not the science of the day show that aside from the justice or injustice of making a better provision than now exists, not only for the disabled laborer who cannot work, but the able-bodied laborer who cannot find it, the question has scarcely been discussed at all?

If civilization is at all desirable, then inequalities of condition are desirable, because civilization could not be maintained without them. If there were no inequalities of condition there could be no accumulations of capital to any great extent beyond immediate wants: there would be one dead level of equality, and little if any production on credit. Production on credit is the life of modern civilization. The problem now is, how to limit and control it by an invariable rule, and not to destroy it. The reason why the theories of Fourier are impracticable is, because they are directly repugnant to the grand fact on which all civilization is based, and that grand fact is accumulation of capital, made possible by great differences of capacity and condition, and rendered certain by the maintenance of the power to hold the accumu-

lation. The power of those who maintain not only the right to labor, but to hold the accumulated fruits of labor, is more than ninety per cent. against the ten per cent. of those who, while insisting upon the right of all to labor, demand that those who exercise the right shall divide the fruits with those who refuse to exercise it. But suppose there are those who are willing to exercise the right but are unable to do it: ought they not to be provided for? The economical science of the day, as heretofore taught, is unable to answer this question at all, because one of its chief doctrines is, that such inability does not exist. The only proper answer which can be given, is one founded, not upon an abstract theory, but upon all the complex facts which bear upon the question. There is abundance of land in the United States, and every man who can work is able to buy with his surplus labor land enough for the support of himself and family. If he buys land and labors, it is impossible for him to overproduce: if he and his fellow-laborers go to cities and towns, to forges, factories and shops in too large numbers, and jostle each other there, they may and perhaps will produce more than can be sold to the men who are cultivating land, and to each other. If they do so, it is not the fault of capitalists or producers; it is the common misfortune of these and the laborers together. This is the true answer to give to labor which finds itself in the wrong place, but it is an answer which economists who teach that there can be no overproduction are estopped from giving. While this is the true answer, given in terms which labor as well as capital can understand, the account between labor and capital may be economically stated in mercantile form, thus: labor stands debited with all the money it has received for its work in producing what cannot be sold; it has nothing to pay the debt with, and if it had, would not be liable to pay it; it must be paid by producing capital up to the point where bankruptcy forbids further payment. Labor loses nothing: it only suffers because it has brought its wares, for which it has been paid, to a market which it has overstocked, and it must find another. It has received its share of the result of the joint efforts of

itself and producing capital in accumulating overstock, and for that reason has no cause of complaint. Economically speaking, producing capital, therefore, stands credited with labor's share of profits, which it has paid in advance, out of which labor has been supported for a long time, and has a surplus left in savings banks and elsewhere. Loaning capital stands debited with discount and interest paid it in advance by producing capital and received in the shape of dividends, while the latter stands debited with profits paid by mercantile capital on overstock remaining unsold. The surplus of wages has gone again into overstock, and that of dividends and profits into railroads, municipal improvements, houses, lands, mortgages, and other investments.

It is absurd, therefore, upon this plain, unvarnished statement of facts, to speak of any grievances of labor: capital is the loser, and not labor. Here we have the grand primary elements of disturbance: they are three in number,—interest, wages, and profits. Interest and wages are the fixed shares of two out of the three producing partners paid in advance; the share of the third taking the chances of a market. The three partners are Labor, Producing Capital, and Loaning Capital, the latter of which is the sole origin and source of production on credit. One of the immediate and most disastrous of the results of this prepayment of its share in the profits to loaning capital in the shape of interest in advance, and its share to labor in the shape of wages, is thus shown to be a transfer of a large portion of the load to the shoulders of intermediate producers in the character of merchants and adventurers who buy of first producers, and pay them profits on the sales. If Loaning capital were always compelled to wait for interest, and Labor for wages, until sales were made for cash, a banking, commercial, and industrial crisis would be impossible. Reduced to its ultimate terms in results,—this means that producing capital would be unable to feed labor or itself very long, without taking account of stock and making sales at market prices for cash. The same result would be accomplished in this manner as by a fixed ratio of metallic reserve, already explained. If Labor alone,

without the company of Loaning capital, were compelled to take its wages out of sales of its product in a cash market, receiving a stipulated share of profits, there could be no such thing as a crisis. Hence we may say that labor itself is the ultimate cause of banking, commercial and industrial crises, because being unable to take the chances of such a market, and requiring for its support its share in advance, — the cost of that support increasing with the overstock, — the only check to production on credit carried to such excess as to cause a crisis, is one of prevention, which can be applied either by regulating bank loans through a metallic reserve, as shown in previous chapters, or by forcing labor to take a fixed share of profits out of sales of its product for cash. Were it required to wait for less than half its wages, industrial crises would either be prevented or largely mitigated. The contraction of labor which would result from such a rule, if everywhere enforced, would be a contraction of production upon an extensive scale. The *banking result* would be the maintenance within short periods of a definite ratio of banking reserve to bank loans and to bank debt. Of the three partners, Labor, Producing Capital, and Loaning Capital, Labor ought to be the most conservative, because it takes the least risk of all three: it has large investments, secured by the funded debt of the United States, and would suffer more than any of the partners, by an attempt at total or partial repudiation of that debt. Such a repudiation would be of course impossible in the long run, because it would be only the last act of the political and social revolution which is not at an end yet and would be set aside in the future. The United States can by no possibility avoid the payment of its debts, according to their equitable tenor, sooner or later: its reputation alone can suffer by an attempt which must necessarily prove abortive.

CHAPTER XXXII.

OUGHT GOVERNMENTS, OR BANKS IN THEIR BEHALF, TO
ISSUE INCONVERTIBLE CURRENCY UNDER ANY CIRCUM-
STANCES ?

THIS chapter I have placed last but one, because a careful examination of all the subjects discussed is essential, in order to give a proper answer to such a question.

If means can be readily obtained by governments under great emergencies through loans made in convertible paper or metal, such loans ought to be resorted to, and the issue of inconvertible paper ought never to take place. The necessity of resorting to it does not arise, as has been said, from any scarcity of metal existing under a system of convertible bank-notes and bank debt, because it arises equally in countries having a large metallic circulation, — like France, for instance. The stimulus of advancing prices, furnished by inconvertible paper, although for the most part unreal, has a powerful effect upon the thoughts and feelings of a people, and may for a time lead to great energy of production in all directions, and thus help to sustain them for a time in carrying on a great war. This was seen in Great Britain from 1793 to 1816, and in the United States from 1861 to 1865. During the latter period great benefit was also derived from maintaining government securities at par in money, although they had fallen much below par in commodities. These securities were at par, in popular opinion, because they seemed to be at par. The enormous losses inflicted by depreciated money upon creditors were forced contributions to hand over to debtors, while no apparent loss was caused to the creditors themselves.

The benefit received by the United States was twofold ;

first, by the increased energy of production through seemingly advancing prices ; and secondly, the appearance of a highly sustained public credit. The issue was carried so far as to approach dangerous ground, because the power of deposit loans to raise prices and stimulate production was not understood by the government. A mistake was made in making the funded debt — principal and interest — payable in metal. Two hundred millions payable in gold were sufficient, from the political stand-point of the time. Sold by holders, these would have found their way abroad, and would have been enough to interest bankers and capitalists on the side of the United States. The remainder of the debt and interest, payable until after the reestablishment of convertibility in the currency the United States might be using, when paying interest or principal, would, to a great extent, have remained in the country ; would have gone into insurance, savings banks, and other reserves of capital, thus saving the country from many of the unproductive investments made between 1865 and 1873, through the sale of government debt, to go abroad, which brought returns, to be invested in railroads, municipal improvements, etc., and thus increased production upon credit. One of the results was an enormous expenditure of the relative necessities of life imported at high prices, in the shape of foreign goods, some of which were the most luxurious and costly of all. But the greater part of the departing government debt, payable in metal, reappeared in the shape of securities of a very different order, issued by railroad and other corporations to former holders of the government debt or those who stood in their place. The result was the same as if the government had, by issuing its debt on behalf of the community in time of peace, borrowed one thousand millions or more of velvets, silks, cloth, iron, and other goods, exchanged a large portion of them for the necessities of life, distributed a considerable portion to be consumed unproductively, and used the remainder to build railroads, houses, and warehouses, to make cloth and other goods in excess of the ability of producing consumers to take. It was like a man buying and

producing, and at the same time consuming largely in excess of his production, upon the strength of a mortgage he had given upon his own house. The loss to the United States, in consequence of so much of its debt going abroad, was enormous. It is idle to repeat the old fallacy that the scarcity of capital in the United States made it desirable to send so much of its debt abroad. Whether A. can sell out his security which is yielding six, and invest the proceeds at eight per cent., to the advantage of the whole country, depends upon whether he himself, or somebody else as his representative in the field of production, will actually earn the eight per cent. If the eight per cent. is apparently, but not really, earned, because the earning party has built a warehouse, a railroad, or a mill, or made municipal improvements which are not needed because they are not worth half their cost, or made cloth or iron which cannot be sold, the investment at six per cent. would have been better for the whole country.

Again, the public debt represented a liability to pay in commodities at the rate of nearly 2 for 1 received. The debt sent abroad, therefore, represented five hundred millions or more issued for no real value received, but which the United States were and are as much bound in justice and honor to pay, as if they had received full value.

If A.'s debt of ten thousand dollars was incurred for the consideration of goods sold nominally to that amount, but really worth only one half of it, and the debt is offered him afterwards at fifty cents to the dollar, the best investment for him is to purchase his own debt. The same principle applies to the debt of the United States; for although the debt was not offered directly to home buyers at fifty cents to the dollar, the retention of the debt in the United States would have saved five hundred millions to the country by the rise in value of the debt, accruing to the benefit of citizens at home.

Another bad result followed for the United States, and the whole commercial world. In consequence of making the debt payable in metal, a considerable amount of gold left the

country which would otherwise have remained, and metallic distribution was disturbed, prices were probably raised abroad, and the metal which must now be recalled would have remained at home, ready to make its appearance upon the return of convertibility. But after making due allowance for all these mistakes, the government was justified in its acts by the necessities of the case, and the same may be said of Great Britain ; but a terrible reaction was the result for both countries.

France has given an entirely different result under circumstances in some respects very similar, but in others quite different. France had no banking system to double the effect of the issues by the Bank of France. The notes retired an amount of metal equal to their own volume ; they were not lent to producers to any greater extent than metal had been before, and at the first opportunity they were invested in interest bearing debt in the shape of *rentes*. Had the people of France been like their neighbors of England, or like the citizens of the United States, — had they possessed a banking system like that of England or the United States, with a relatively larger part of their population engaged in labor other than that which provides absolute necessities, and had there been less conservatism in their social habits, the result would have been very different. To all appearance the notes answered well the purposes of the government and people, and did good service in paying the indemnity, and recalling from abroad the national debt. Harmony, and at the same time energy of production, steady national habits, and the absence of banks, maintained comparatively steady prices. If there had been no banks in the United States, the volume of paper issued after the commencement of the civil war would have raised prices, but the prices would have fallen far short of the figures actually reached.

The people of a country, nevertheless, determine to a considerable extent the effect of such issues, for, with an inconvertible currency like that of France, the people of the United States could not, even without banks, have maintained as perfect steadiness of production and of prices as

did the people of France, nor would a convertible currency like that of France to-day maintain equal steadiness in the United States.

On the whole, it may be said that under trying conditions governments seem instinctively to resort to issues of paper. The loss in material results is perhaps greater than the gain, but to carry into effect great undertakings like those of Great Britain, the United States, and France, the end would seem to justify the means, where steps to return to the normal condition of a metallic or duly regulated circulation are taken as soon as possible. The grand mistake made by Congress, acting, however, no doubt, in accordance with an ill-informed public opinion, was the repeal of the joint resolution, which required the Secretary of the Treasury to retire monthly a certain amount of legal-tenders. Had Mr. McCulloch, then secretary, been allowed to proceed with the contraction, which he had himself advised, and been allowed to inaugurate, to the desired end, thousands would have been saved from the bankruptcies which have followed since 1873. Under our banking system crises must undoubtedly come as regularly as production on credit expands and suffers collapse, but that expansion which was then proceeding under the stimulus of bank loans and high prices, would have been happily arrested, and we should have had no crisis until after convertibility had been restored, and then in a mitigated form. The industrial expansion on credit, or the expansion of production on credit, — whichever one chooses to call it, — would then have been postponed, to proceed with the same ratio of variation as actually took place under the inconvertible notes, but with much lower range of prices and less bankruptcy and national loss.

CHAPTER XXXIII.

HOW BANKING RESERVE OUGHT TO BE KEPT.

How banking reserve ought to be kept has been already fully discussed, but its great importance requires a brief chapter for a statement of the principles involved, in order to catch the attention of casual readers.

The principle of a banking reserve is founded on the economical fact that deposits are not the money of the banker, but of the depositors, so far as the production and exchanges of the country where the banking is done, are concerned.

How the law may regard the question of legal property is entirely immaterial: the present question is: What is done, and what ought to be done with the deposits? Deposits are in their origin, money received in exchange for goods sold to producing consumers. When half or more of all the money in a country is banked in the shape of deposits, less than twenty-five per cent. of the metal and notes deposited will make all the payments of the depositors, and the remainder may therefore be loaned and kept on loan. The twenty-five per cent., which is called banking reserve, but is really and truly the consolidated fund of money belonging to depositors, into which all depositors pay, — one set paying and one set receiving, but all putting the money back again into the fund, and frequently never taking it out in consequence of clearing, — is the fund through which all the exchanges of the market of producing consumers are made; all such exchanges increasing the reserve. On the other hand, all exchanges outside of the producing consumers' market diminish the reserve by increasing the amount of bank and borrowers' debt, over and above reserve, be-

cause they are merely exchanges of money for labor whose products have not yet come into that market. Hence, to keep the reserve in definite ratio to bank debt is to allow no exchanges of money, for labor, by means of bank loans, in excess of the exchanges of producing consumers' markets. But it will also have another effect. It will cause to vanish the illusion that a bank deals only in debt, because under that limitation the payments into the reserve from circulation outside of the bank will equal the payments out of the reserve into outstanding circulation. The payments out of the reserve into outstanding circulation will, so far as they are made by way of loan, be equaled by the payments into the reserve, on account of loans paid. It will have a still further effect. It will cause all the gold and silver outside of banks to come into active circulation by the side of bank-notes; replenishing, and being replenished by banking reserve. It may be impossible to introduce any such regulation of reserve, but it is, nevertheless, absolutely essential in order to bring metallic money into full circulation by the side of paper. The bank debt, over and above reserve, may be regarded subjectively as a power or series of powers to work the reserve by circulating the metal, or the bank-notes contained in it if there be no metal. To fix a definite ratio of reserve to debt over and above reserve is therefore to fix, by definite limits, the power of working the reserve through loans. If the reserve is regulated, loans are regulated; and the regulation of loans is the most important object attained, by having money in the reserve at all. If loans are not (and in the United States and England they are not) regulated by the reserve, then all the metal in the reserve, as well in the Bank of England as elsewhere, over and above what will supply actual calls to send abroad or pay out for circulation at home, is superfluous, and might as well be locked up, buried, or sent abroad. But if a fixed ratio can be kept, it is all needed to perform the twofold office of supplying outstanding circulation, and regulating the volume of loans everywhere throughout the country.

This regulation would not produce perfect steadiness of production among English-speaking people. There is an exuberance of productive energy which would counteract it, even if they had such a money system as France, or, in other words, the absence of all system but that of self-regulating machinery. Nevertheless, it would, if practicable, go far towards effecting a change both in the habits of the people and the character of their exchanges.

The difference between the objects attained by a regulated banking reserve in the United States and England may be thus stated: When bank-notes are merely convertible without any definite reserve, the obligation being merely to redeem on demand, and when there is no definite reserve of metal to loans and deposits, bank-notes, instead of being sent to the issuing bank for redemption, and until they are so sent, kept in their own hands by those who receive them, go largely into deposit, and before the debt created against the receiving bank by the deposit is paid to the depositors, and before the notes are redeemed, "deposits" thus arising, through the deposit of bank debt in the shape of notes, become a source of still further loans. The receiving bank merely gives its own deposit debt for the time, in exchange for the bank debt covered by the notes, but instead of treating the deposit as debt, treats it as resources, and by loans founded upon these supposed resources, causes production, already overloaded, to load itself still more heavily. If Adam Smith's law of a regulated reserve were clearly perceived and universally applied, such a result would be impossible. The only hope for bankers under such a variable reserve lies in their caution and prudence; but with a regulated reserve, all are forced to be conservative. If there is no regulated reserve, all bankers receive such deposits alike: the sagacious and prudent discriminate as to the quality, and are cautious as to the quantity, of their loans: the imprudent and careless discriminate too little as to either; but with a regulated reserve, caution, prudence and sagacity, are, so to speak, distributed freely among all bankers, because prudence has already been forced upon the producing

community. Thus, when a reserve of twenty per cent. coin is rigorously maintained in a deposit-loan bank which has deposits to the amount of one million of dollars, the reserve standing at two hundred, and loans at eight hundred thousand dollars, if ten thousand dollars of bank-notes are sent in for deposit, they must be refused unless accompanied by two thousand dollars in coin in addition to the notes; or unless two thousand dollars of the notes be immediately sent home by the receiving bank for redemption in coin. If a loan is asked, it can be made only upon the condition that the market of consumers has already returned into the bank a surplus to be used in the market of producers. The principle upon which Adam Smith's regulated reserve applies to a deposit-loan bank, is, that a bank deals only in deposits, unless it be regarded as *issuing credits*. This is plain fact without theory. If a bank has no deposits to loan without trespassing upon its reserve, after a certain fixed point is reached, then loans ought to stop until more deposits come in.

There is no danger from unredeemed notes, on the other hand, in England: the only question to be settled there by bankers under a regulated reserve, would be, whether they had deposits enough to make the loan asked, within the limits of the rule. In both countries the rule would prevent the enormous accumulation of overstock before a crisis, by checking bank loans and thereby deposits. Deposits with such a reserve could not have increased forty-two millions in the United States, within three years prior to 1857, and bank-notes ten millions. In England deposits could not have increased in the Bank of England from less than eight millions, in the autumn of 1823, to more than ten millions in the following February, falling to nearly six millions in the following August. They could not have increased from less than eleven millions in February, 1835, to more than fourteen in February, 1836, falling to less than eight and a half millions in February, 1838; nor under the Act of 1844, when the circulation was virtually gold, could private deposits have increased from less than

eight and a half millions to nearly nineteen millions during 1846, falling to less than seven millions in 1847, had there been a *regulated economy* of the "reserve."

The maintenance of Adam Smith's law is as essential for the Bank of England and all other English banks as it would be were they banks of issue only, without the function of deposit. This doctrine is maintained with a great deal of force by the author of "The Scotch Banks and System of Issue." He argues that to limit bank-notes by gold, without at the same time limiting bank loans, is useless. He fairly demonstrates this proposition, and had he proceeded to the logical conclusion from Smith's law, he would have urged a definite reserve for all banks, assuming its practicability. He certainly could not have carefully studied that law, for he insists that inasmuch as there is no definite limitation of bank loans, there need be none of bank-notes, and he is entirely right if the English doctrine (that of the Bank Act of 1844) and the prevailing American doctrine is sound. In reality, however, he only demonstrates the truth of the doctrine of this book, — that Smith's law applies to all banks. The only difference lies in the great difficulty of applying it to English or American deposit-loan banks. Smith's assertion that convertibility is sufficient for banks of issue, if small notes are excluded (and I believe, if included), is correct, but experience has demonstrated that it is not sufficient for deposit-loan banks. The latter stand or fall together; the former separately and independently.

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